“World Cultural Economic Forum” Public Discussion st Baton Rouge Pari August 2, 2007

US Army Corps of Engineers®
New Orleans District

Welcome to the City of
Baton Rouge
Baton Rouge

“Flood Month” Public Meeting AGENDA

6:10 pm **Hurricane Restoration**
Mr. Thomas J. Podany, Chief, Protection & Restoration Office, United States Army Corps of Engineers, New Orleans District

6:30 pm **University Lakes Aquatic Ecosystem Restoration**
Mr. Mark Wingate, Senior Project Manager, United States Army Corps of Engineers, New Orleans District

6:45 pm **East Baton Rouge Flood Control**
Mr. Jason McCrossen, Project Manager, United States Army Corps of Engineers,
New Orleans District

7:00 pm **Comite River Diversion**
Mr. Antoine Jackson, Project Manager, United States Army Corps of Engineers,
New Orleans District

7:15 pm **Public Comments**
Mr. Falcolm E. Hull, Chief, Projects Branch, United States Army Corps of Engineers, New Orleans District

Baton Rouge Flood Month—New Orleans Area Hurricane Protection System

by

Tom Podany
U.S. Army Corps of Engineers
New Orleans District

August 2, 2007

Agenda

- District and Recovery Missions
- New Orleans Hurricane Protection System
  - Repair / Restore / Complete
  - Improve – Stronger and Better
  - Evaluate Higher Levels of Protection
- Readiness
- Risk

District Mission

- **Provide comprehensive water resources management to include navigation, flood and hurricane storm damage reduction and environmental stewardship for South Louisiana to ensure public safety and benefit the nation.**
- **Be prepared to conduct contingency operations and support the national response plan.**

U.S. Army Corps of Engineers ®

Recovery Mission

- Support FEMA: Execute debris mission and provide technical assistance to the state of Louisiana
- Repair: Return pre-Katrina protection to hurricane-damaged components by June 1, 2006
- Restore:
  - Restore undamaged levees/floodwalls to originally authorized heights
  - Correct Floodwall Deficiencies
- Complete: Accelerated completion of unconstructed portions of authorized projects
- Improve: Make improvements to optimize the performance of the existing system
- Certify: Raise system to provide 100 year level of protection by 2011
- Evaluate Higher Levels of Protection: Louisiana Coastal Protection and Restoration Report - preliminary report completed June 2006, final due December 2007

La. Recovery Field Office –
Est. Complete by 30 Sep 07

Task Force Guardian –
100% Complete

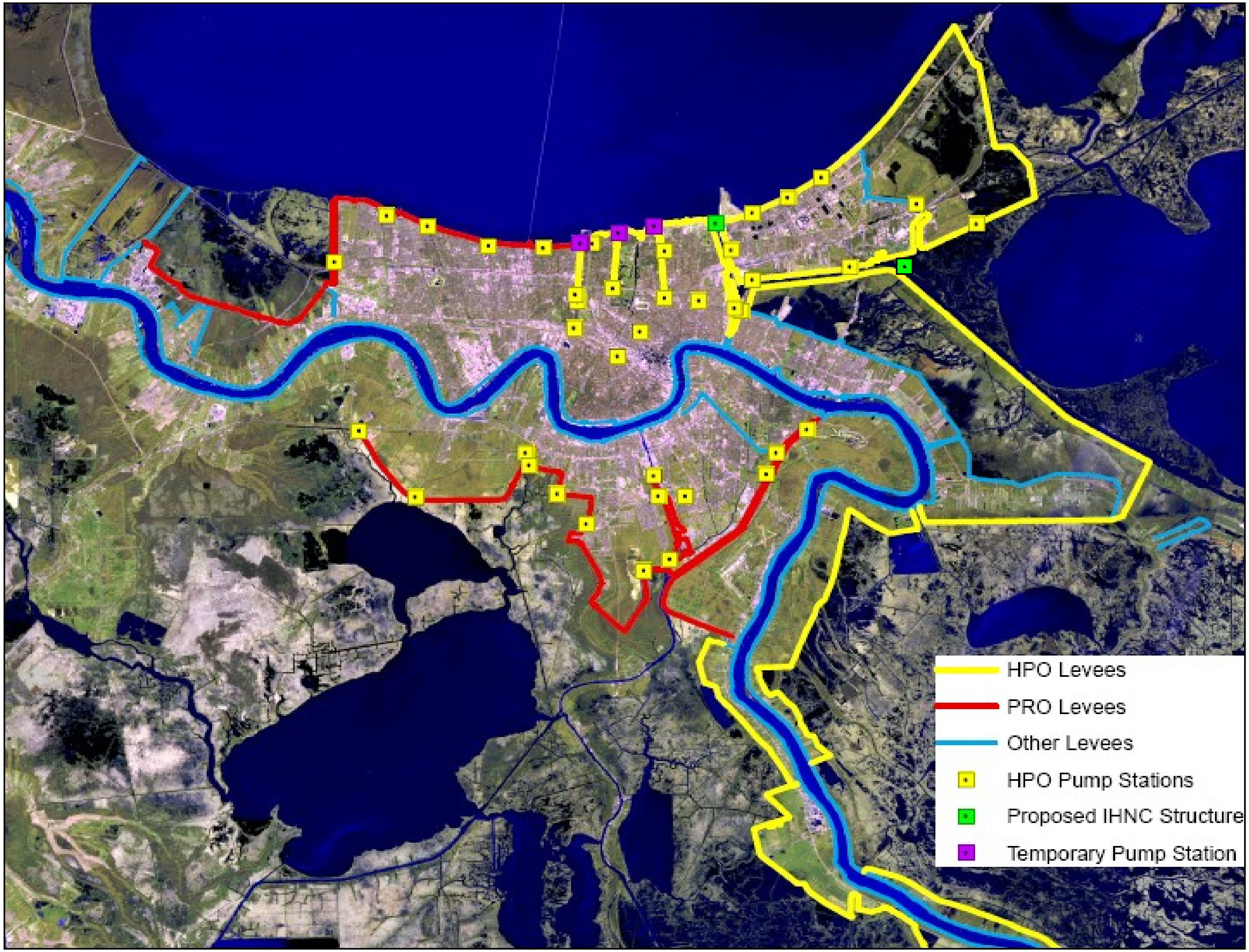
New Orleans District and Hurricane Protection Office -

Ongoing

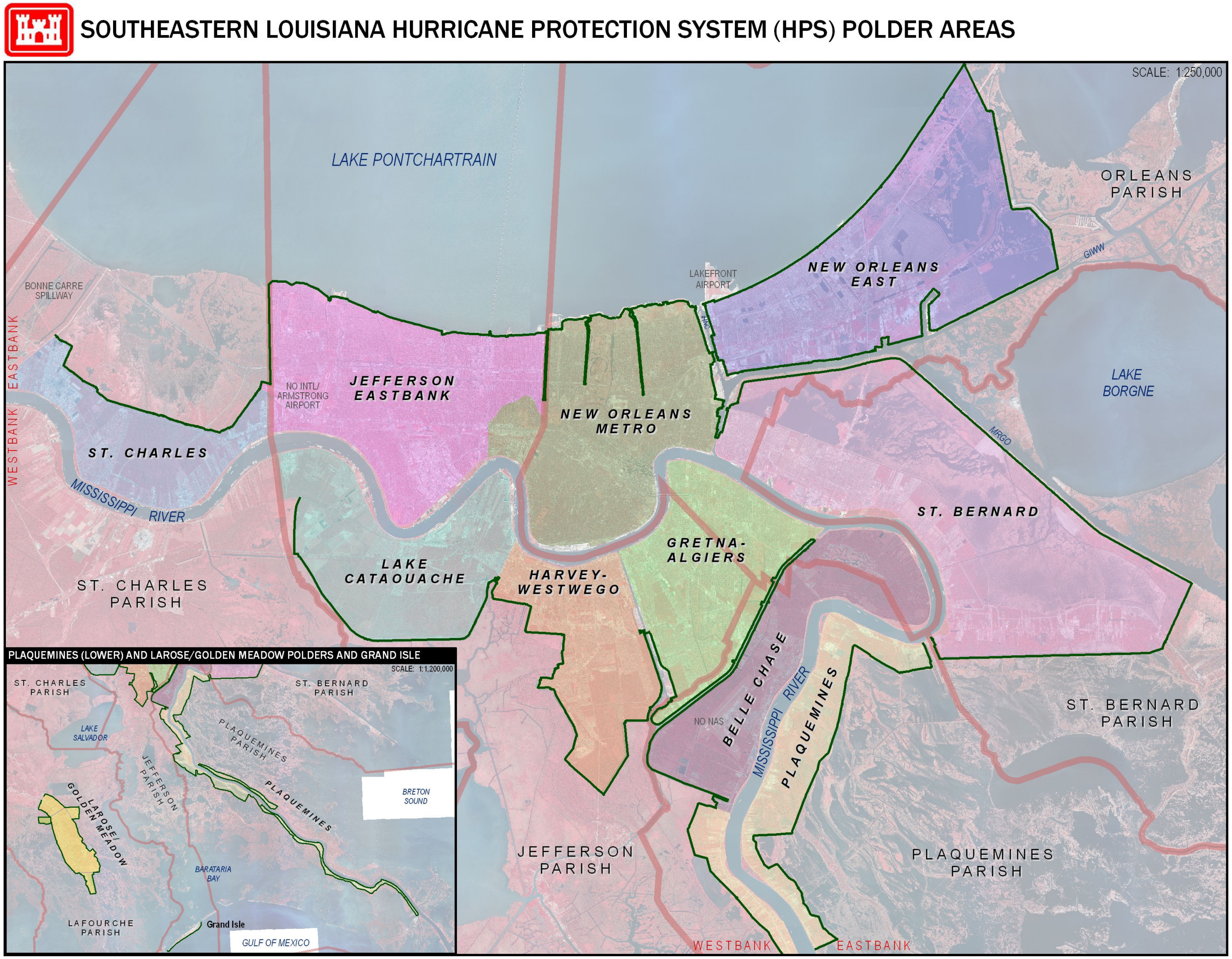
Our Mission and Commitment

- *Repair the damages, making what was there before whole again.*
- *Build the system to provide 100-year level of protection capable of withstanding the effects of a storm having a 1% chance of occurring each year.*
- *Study and recommend solutions to provide higher levels of protection; restore and protect coastal wetlands (LaCPR).*

HPS Division of Labor


HPO Levees
PRO Levees
Other Levees
HPO Pump Stations
Proposed IHNC Structure
Temporary Pump Station

Hurricane Protection System Projects Summary



SOUTHEASTERN LOUISIANA HURRICANE PROTECTION SYSTEM (HPS) POLDER AREAS

SCALE: 1:250,000
LAKE PONTCHARTRAIN
ORLEANS PARISH
GIWW
NEW ORLEANS EAST
LAKEFRONT AIRPORT
BONNE CARRE SPILLWAY
EASTBANK
WESTBANK
NO INTL/ ARMSTRONG AIRPORT
JEFFERSON EASTBANK
NEW ORLEANS METRO
LAKE BORGNE
MRGO
ST. CHARLES
MISSISSIPPI RIVER
ST. BERNARD
GRETNA-ALGIERS
LAKE CATAOUACHE
HARVEY-WESTWEGO
ST. CHARLES PARISH
BELLE CHASE
NO NAS
PLAQUEMINES
ST. BERNARD PARISH
JEFFERSON PARISH
PLAQUEMINES PARISH
WESTBANK
EASTBANK
PLAQUEMINES (LOWER) AND LAROSE/GOLDEN MEADOW POLDERS AND GRAND ISLE
SCALE: 1:1,200,000
ST. CHARLES PARISH
ST. BERNARD PARISH
LAKE SALVADOR
PLAQUEMINES PARISH
JEFFERSON PARISH
LAROSE/ GOLDEN MEADOW
PLAQUEMINES
BRETON SOUND
BARATARIA BAY
LAFOURCHE PARISH
Grand Isle
GULF OF MEXICO

Contracts
266

Complete
49

In Construction
49

In Design
132

Prepping for P&S
36

FEMA Mission Status

Hurricanes Katrina and Rita		
Mission	***Louisiana***	***Complete***
Ice	1,533 trucks	100%
Water	2,178 trucks	100%
Power		
Assessed	928	100%
Installed	288	100%
Roofing	81,318	100%
Structures	310	100%
Debris	28.0 million cy	98%
Funding		
Allocated	$3.04 billion	
Obligated	$2.76 billion	91%

US Army Corps
of Engineers®

How We Deliver

U.S. ARMY CORPS OF ENGINEERS

Mississippi Valley Division

Task Force Hope
Karen Durham-Aguilera (SES)

St. Paul District

Rock Island District

St. Louis District

Vicksburg District

Memphis District

New Orleans District

Protection Restoration Office
COL Lee

Hurricane Protection Office
COL Bedey

Louisiana Recovery Field Office
Mike Smith

One Team: Relevant, Ready, Responsive, Reliable

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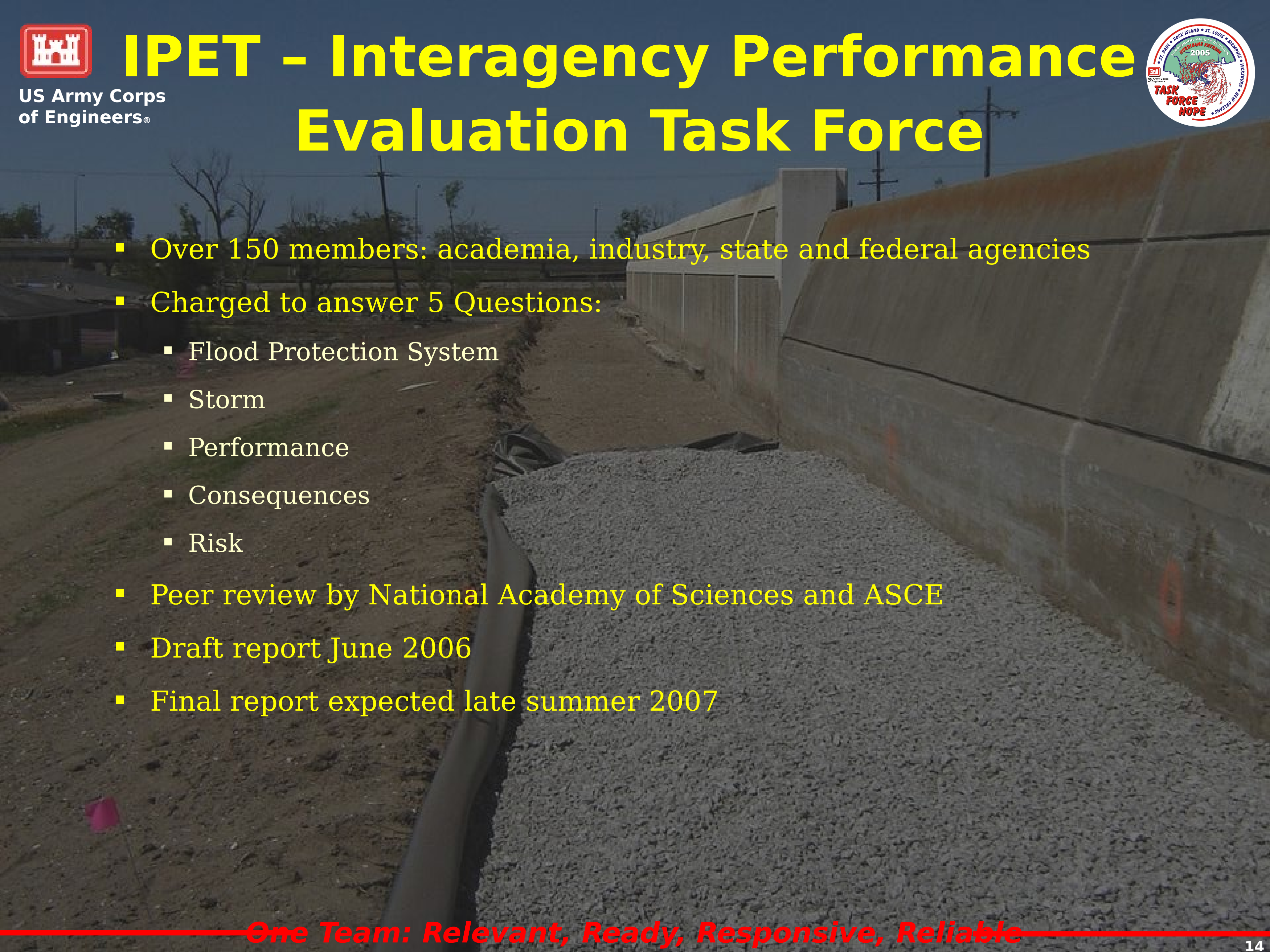
of Engineers®

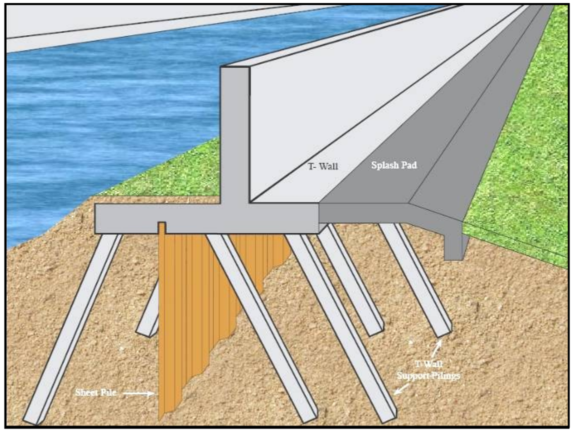
IPET – Interagency Performance Evaluation Task Force



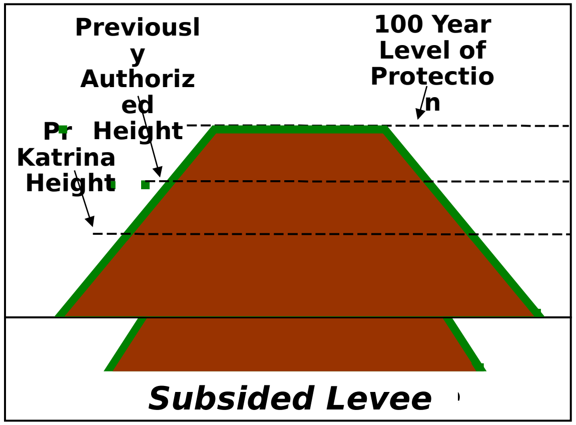
- Over 150 members: academia, industry, state and federal agencies
- Charged to answer 5 Questions:
  - Flood Protection System
  - Storm
  - Performance
  - Consequences
  - Risk
- Peer review by National Academy of Sciences and ASCE
- Draft report June 2006
- Final report expected late summer 2007

Hurricane Protection System: System Improvements

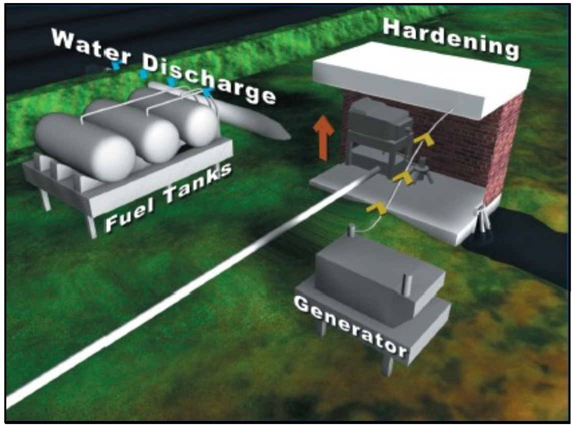
Repair


T- Wall
Splash Pad
Sheet Pile
T-Wall Support Pilings

Correct Floodwall Deficiencies


Previously Authorized Height
100 Year Level of Protection
Pr Katrina Height
Subsided Levee

Restore **Complete** **Certify**


Water Discharge
Hardening
Fuel Tanks
Generator

Improve

Navigable Floodgate

Permanent Pump Stations

Storm Proof Pump Stations

System Improvements for 2007 Hurricane Season

- *All damages repaired.*
- *Lessons learned: deficiencies corrected (I-walls to T-walls)*
- *Vulnerable floodwalls armored.*
- *Transitions strengthened. (floodwalls or flood control structures to levees)*
- *25 miles of new levees and floodwalls restored to design heights.*
- *Outfall canals protected – Interim Gated Closure Structures installed.*

→ ***Hurricane Protection System Stronger and Better than before Katrina***

Lower 9th Ward Breach Reconstruction

Bayou Bienvenue Control Structure Transition Repair

New Orleans East Levee Breach Repair

Hurricane Season: Pumps and Gates

17th St. Canal

- 18 pumps fully installed and tested + 14 portable pumps
- **Current: 5,200 cfs**
- 7,600 cfs by mid-Aug
  - 11 direct drive pumps

Orleans Ave. Canal

- 10 pumps fully installed and tested
- **Current: 2,200 cfs**

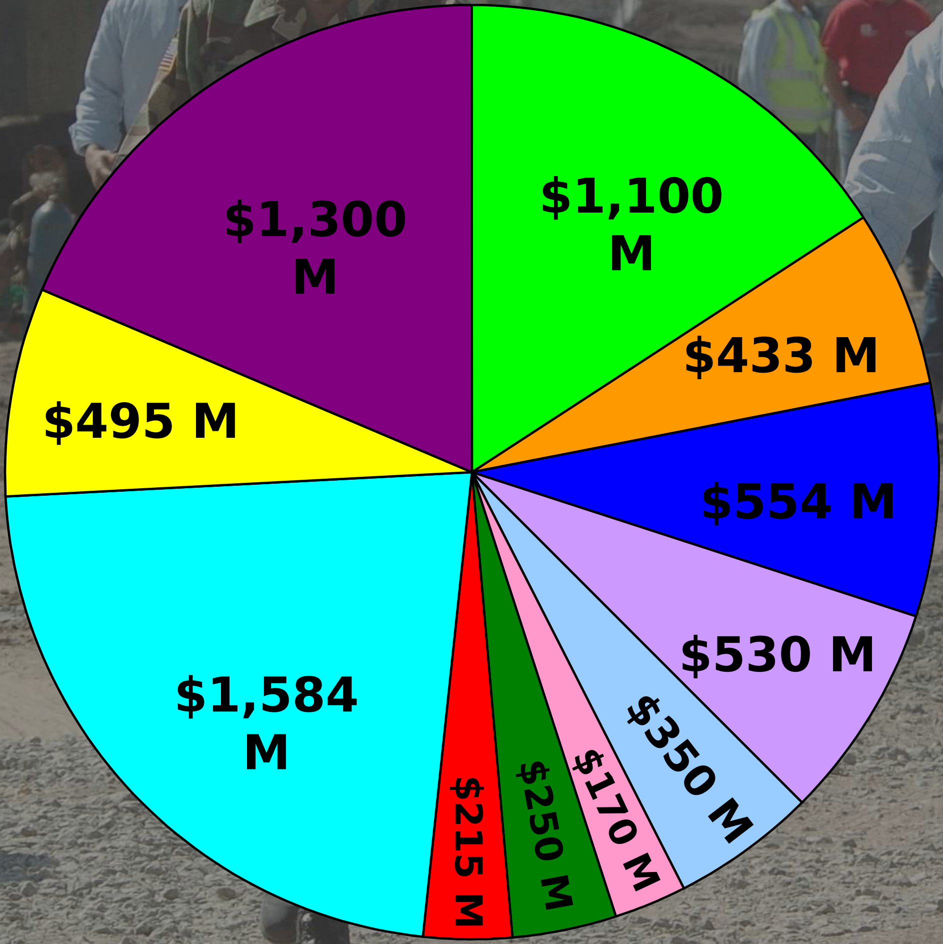
London Ave. Canal

- 12 pumps fully installed and tested
- **Current: 2,800 cfs**
- 5,000 cfs by mid-Aug
  - 8 direct drive pumps

Hurricane Protection System

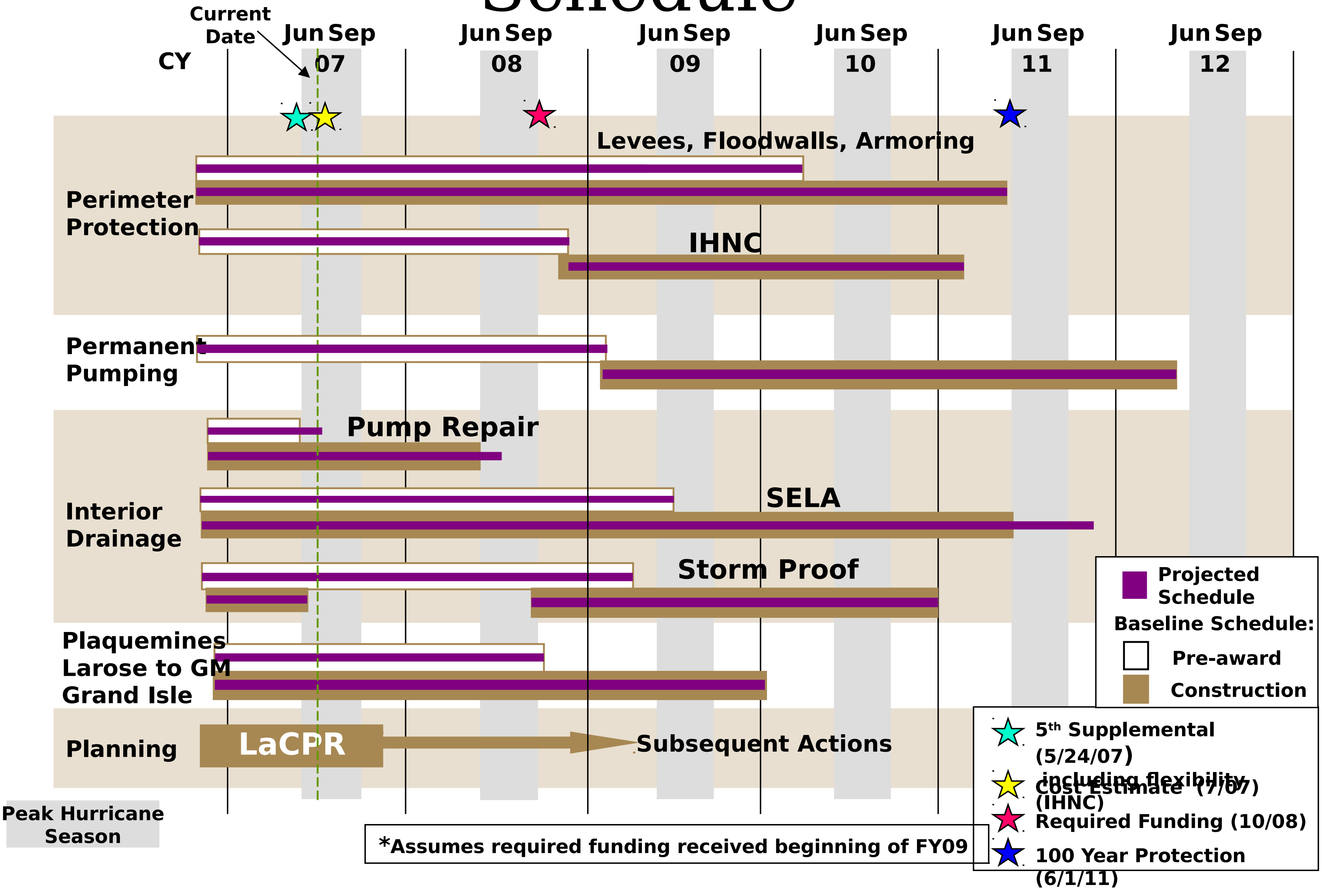
Current Funding Status

TOTAL APPROPRIATED FUNDS: $7.06 Billion



	COMPONENT	$ (M)
🟩	*Repair Existing System*	*$1,100*
🟧	*Restore to Design Height*	*$433*
🟦	*Complete Authorized System*	*$554*
🟦	*I-Wall Replacement*	*$1,584*
🟨	*100-year Level of Protection*	*$495*
🟥	*Incorporate non-Fed Levees in Plaquemines Parish*	*$215*
🟩	*Storm-proof Existing Pump Stations*	*$250*
🟪	*Selective Armoring*	*$170*
🟦	*Navigable Floodgates*	*$350*
🟪	*Permanent Pump Stations*	*$530*
🟪	*5th Supplemental: Restore and Complete*	*$1,300*

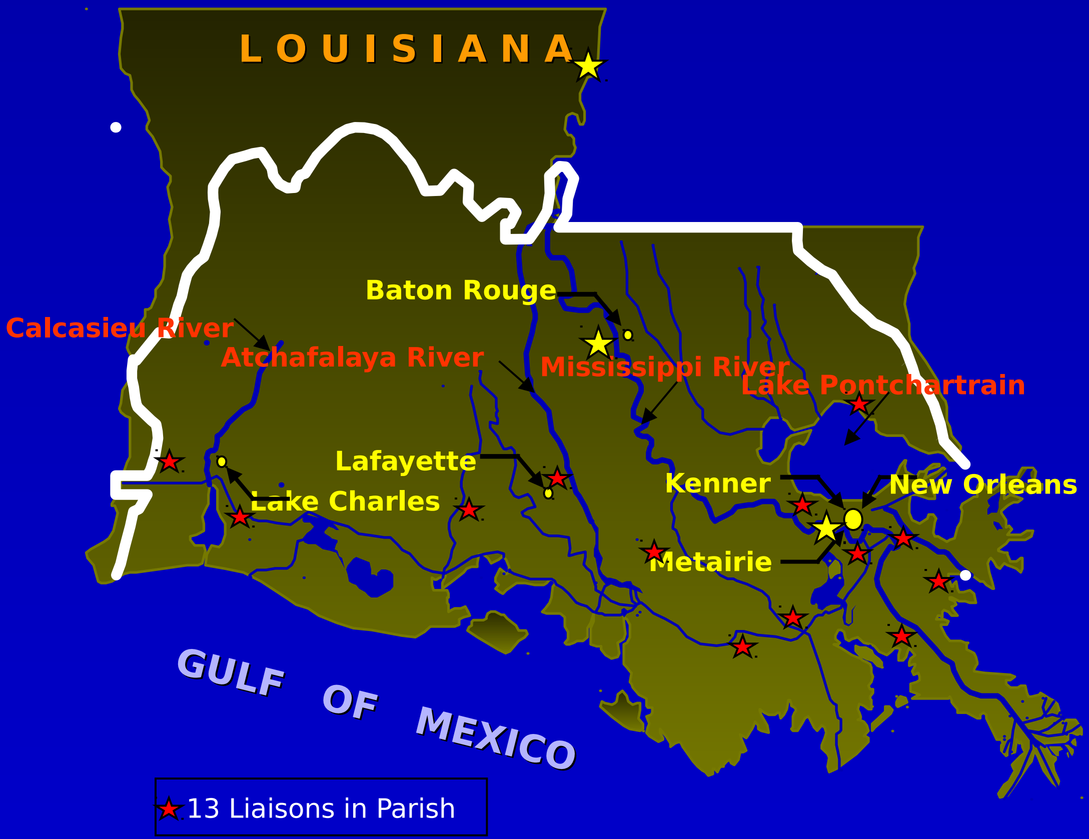
Current System Programmatic Schedule



*Assumes required funding received beginning of FY09

Response Initiatives

New Orleans District
30,000 sq miles


LOUISIANA
Baton Rouge
Calcasieu River
Atchafalaya River
Mississippi River
Lake Pontchartrain
Lafayette
Kenner
New Orleans
Lake Charles
Metairie
GULF OF MEXICO
★ 13 Liaisons in Parish

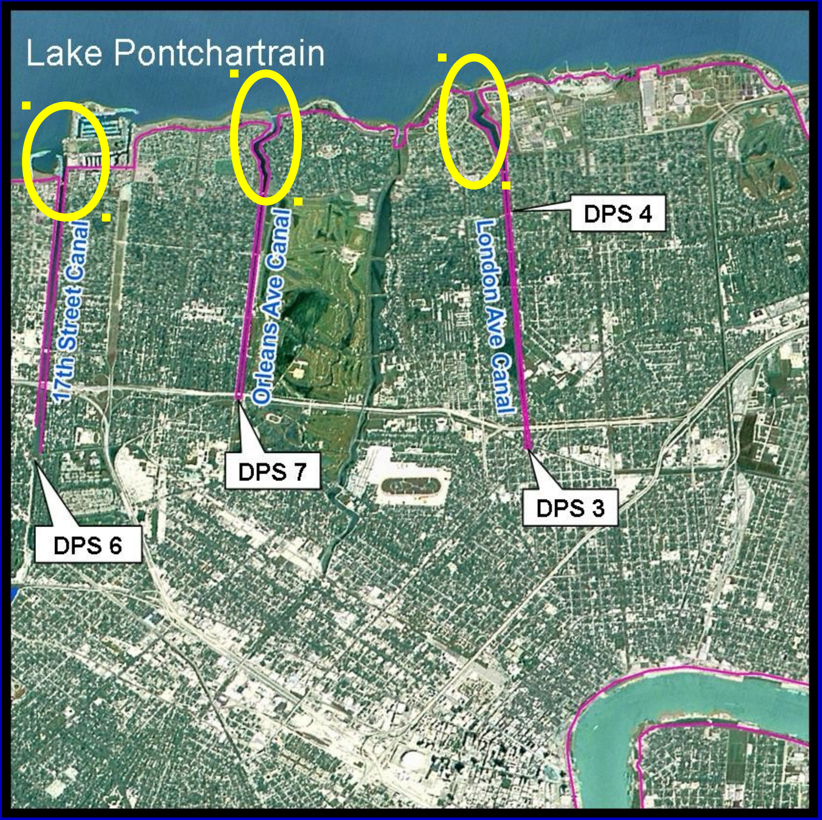
- Pre-positioning of supplies, equipment and manpower
  - Flood fighting
  - Unwatering
  - Channel clearing
- Pre-award helicopter contracts
- Liaisons assigned to 13 coastal parishes

MVN Katrina Lessons Learned

- **District Administration**
- **Communication**
    - Radios on State Police Band- can reach across the state
    - Blackberry / Cell Phones
    - IP Phones
    - Laptops w/ Air cards
    - Satellite Phones
- **Response Structure**
    - Alternate Command Post
    - Reserve EOC
    - LGLs
    - Commander’s Re-evaluation Team
- **Readiness**
    - 16 Hurricane Prep exercises completed. Final exercise 16 Aug
- **Command and Control**
    - Commander in New Orleans with EOC
    - LTC Ford heads up reserve EOC in Port Allen
    - Deputy Commander controls the Alternate Command Post in Vicksburg

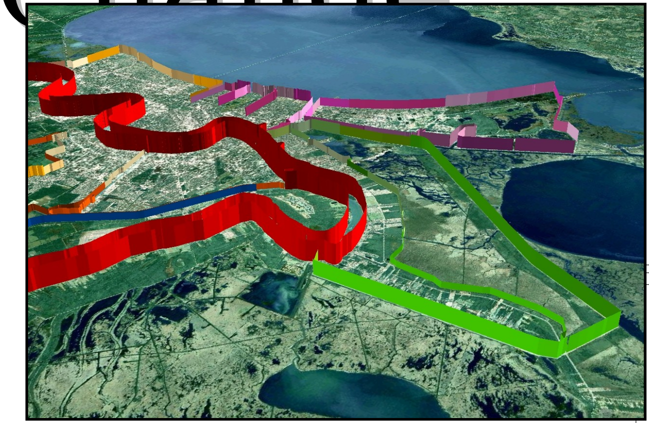
Outfall Canal Structures

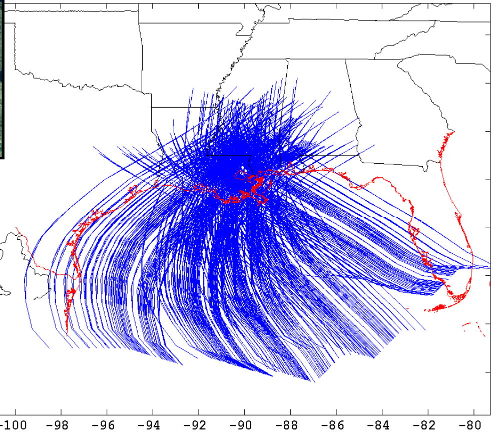
- Protocols and Agreements for Gates in place and operations rehearsed
- Gates only lowered for tropical event
- Safe canal elevations:
  - London Ave – 4.0
  - 17th St – 6.0
  - Orleans Ave. - 8.0
  - Harvey – 4.0
- District Commander/CG decides to lower gates
- Local officials notified
- Gates closed when gage is 1 ft below safe elevation.
- Canal Cpts work with Sewage & Water Board to monitor canal elevations.
- Gates opened as soon as conditions are favorable

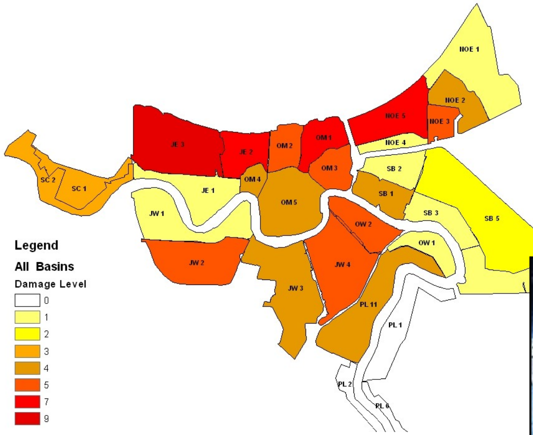

Lake Pontchartrain
17th Street Canal
Orleans Ave Canal
London Ave Canal
DPS 4
DPS 7
DPS 3
DPS 6

USACE’s Actions for Change

- *Comprehensive systems approach*
- *Risk-informed decision making*
- *Communication of risk to the public*
- *Professional and technical expertise*





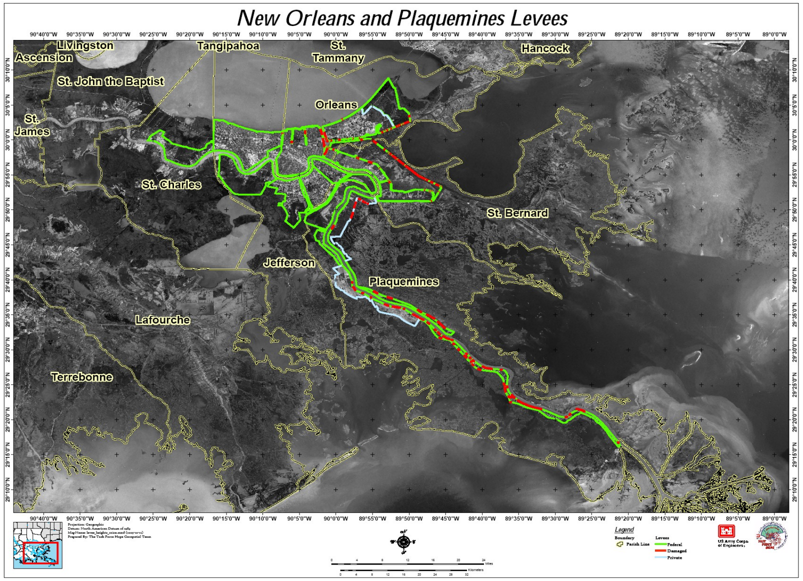

Legend
All Basins
Damage Level
0
1
2
3
4
5
7
9
NOE 1
NOE 2
NOE 5
NOE 3
NOE 4
JE 3
JE 2
OM 2
OM 1
OM 3
SC 2
SC 1
OM 4
JE 1
SB 2
SB 1
OM 5
JW 1
SB 3
SB 5
OW 2
OW 1
JW 2
JW 4
JW 3
PL 11
PL 1
PL 2
PL 6

IPET and Risk Informed Planning

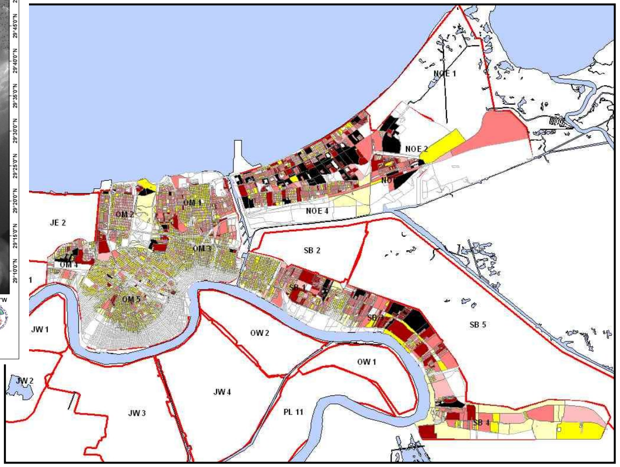
Forensic Analysis and Risk-Based System-Wide Assessme

STORM

SYSTEM

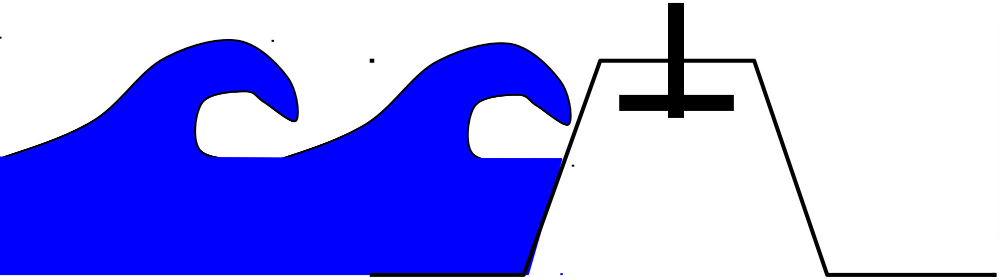

New Orleans and Plaquemines Levees
Livingston
Ascension
Tangipahoa
St. Tammany
Hancock
St. John the Baptist
Orleans
St. James
St. Charles
St. Bernard
Jefferson
Plaquemines
Lafourche
Terrebonne
Legend

CONSEQUENCES


NOE 1
NOE 2
NOE 4
JE 2
OM 2
OM 1
OM 4
OM 3
OM 5
SB 2
SB 3
SB 5
SB 4
JW 1
JW 2
JW 3
JW 4
OW 2
OW 1
PL 11

Results are “in the Ground”

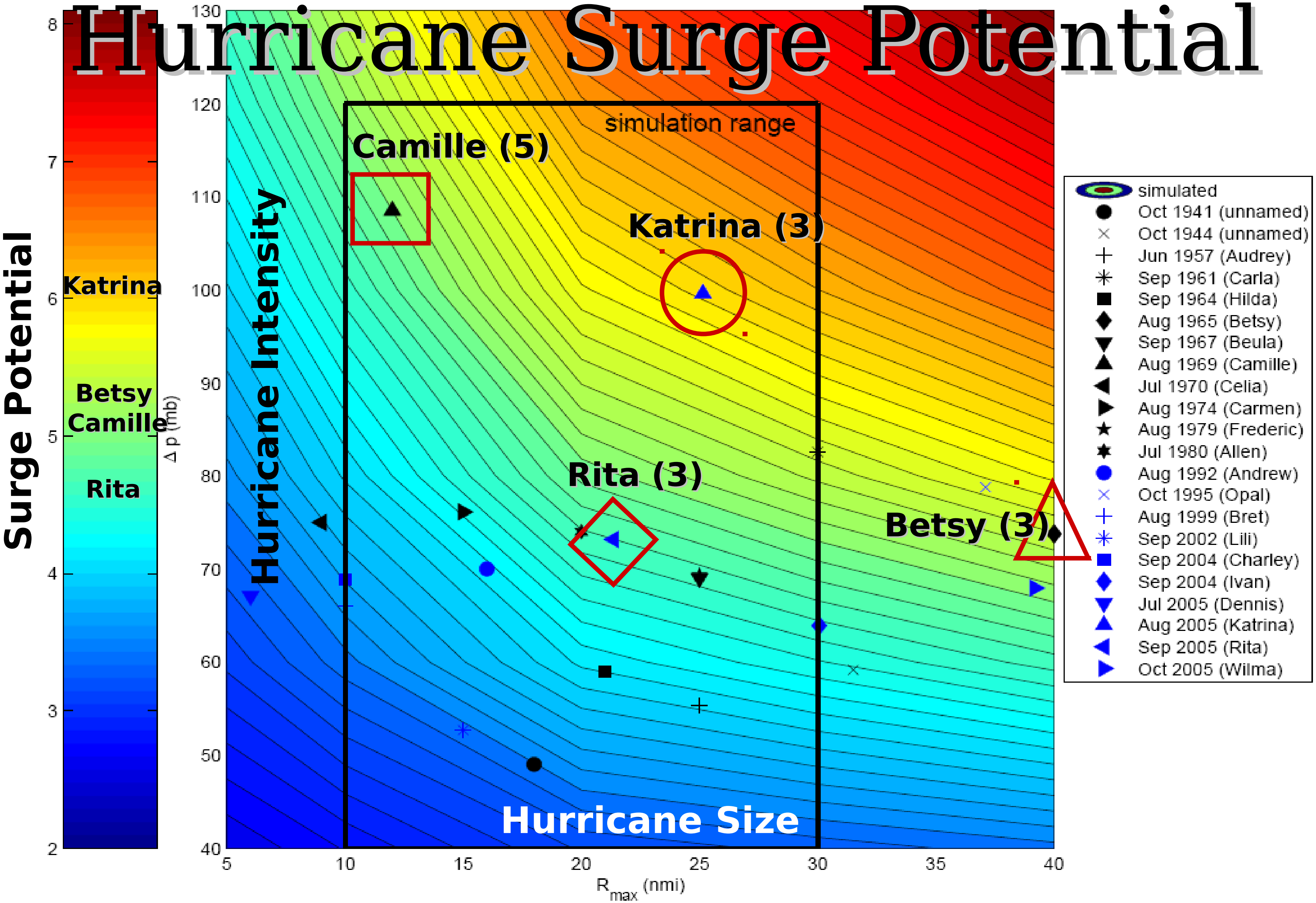
IPET Risk Assessment Model



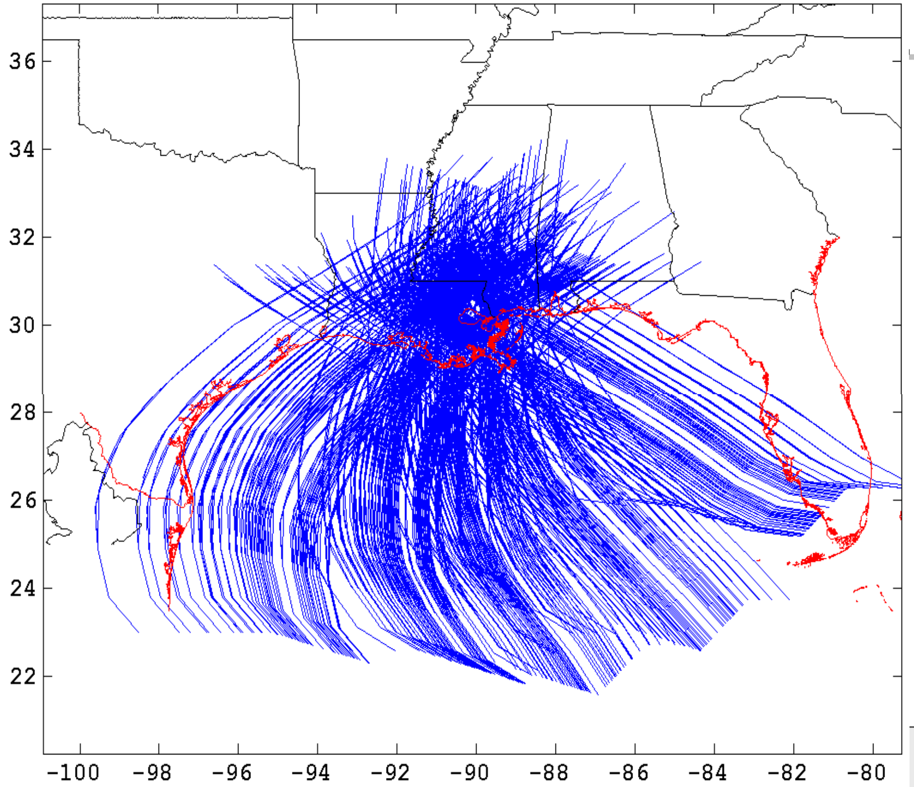
HAZARD →	SYSTEM PERFORMANCE →	CONSEQUENCES →	RISK
Water levels – surge and wave height at 138 locations	Pre-Katrina, Current, Future	Probability of flooding in each sub-basin	Index of relative losses in terms of Life & Property
152 hurricanes - 25-yr to 5,000 + frequency	Performance of entire 350-mile system (134 reaches, 350 features)	Potential Property damage and loss of life caused by flooding	
Variety of intensities, sizes, speeds and tracks	Overtopping, potential breaches, rainfall, pumping	Based on pre-Katrina population and property conditions for each sub-basin in New Orleans and vicinity	

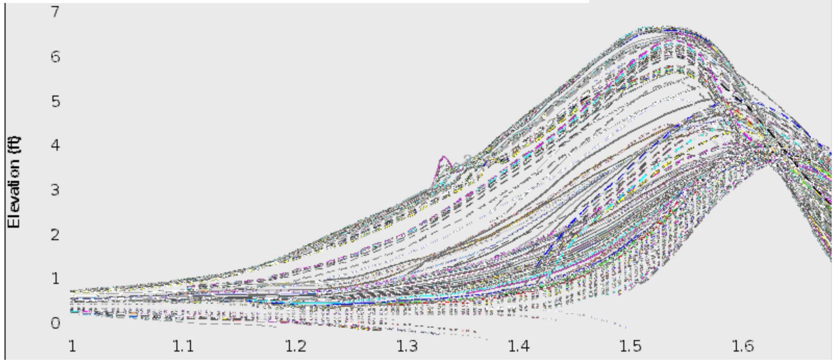
RISK = Chance of Flooding from Hurricanes X Loss of Property or Life

Hurricane Surge Potential



Hurricane Paths Considered in the Risk Analysis


36
34
32
30
28
26
24
22
-100
-98
-96
-94
-92
-90
-88
-86
-84
-82
-80



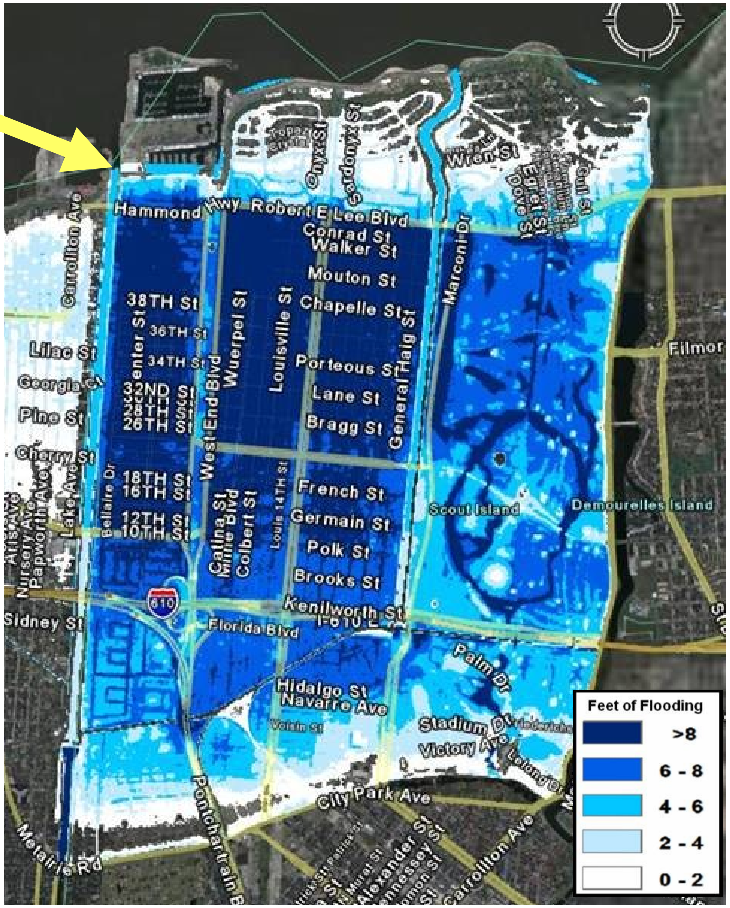
- *3 HPS Geometries*
  - *Pre-Katrina*
  - *Current (1 June 07)*
  - *100-year LOP (~2011)*
- *152 storm hydrographs*
- *350+ features*
  - *Floodwalls*
  - *Levees*
  - *Pumps Stations*

→ **62,928 Hurricane**

Lakeview Risk Map

View from Google Earth

Before Katrina, you had a 1% chance (1 in 100) every year of flooding this deep from Hurricanes.



17th Street Canal

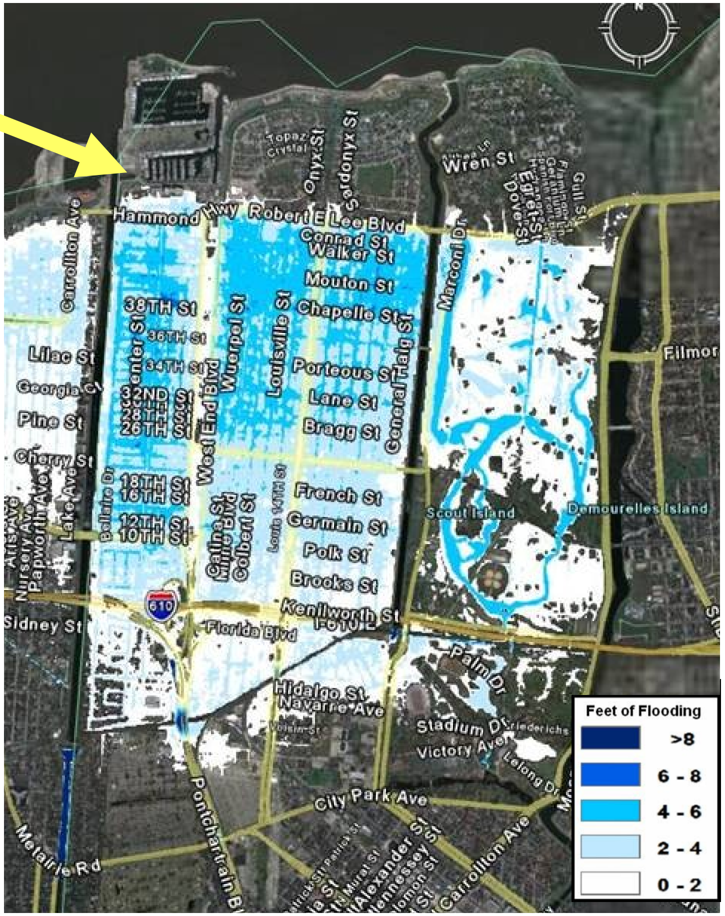
Hammond Hwy
Robert E Lee Blvd
Conrad St
Walker St
Mouton St
Chapelle St
38TH St
36TH St
34TH St
32ND St
26TH St
18TH St
16TH St
12TH St
10TH St
Porteous St
Lane St
Bragg St
French St
Germain St
Polk St
Brooks St
Kenilworth St
I-610
Florida Blvd
Hidalgo St
Navarre Ave
Stadium Dr
Victory Ave
City Park Ave
Palm Dr
Marconi Dr
Scout Island
Demourelles Island
Carrollton Ave
Lilac St
Georgia Ct
Pine St
Cherry St
Sidney St
Metairie Rd
West End Blvd
Wuerpel St
Louisville St
General Haig St
Colbert St
Pontchartrain Blvd
Wren St
Onyx St
Sardonyx St
Filmore
610
Feet of Flooding

Feet of Flooding	
▇	>8
▇	6 - 8
▇	4 - 6
▇	2 - 4
☐	0 - 2

This is the same chance as having your car stolen in any year.

Lakeview Risk Map
View from Google Earth

Today, you have a 1% chance (1 in 100) every year of flooding this deep from Hurricanes

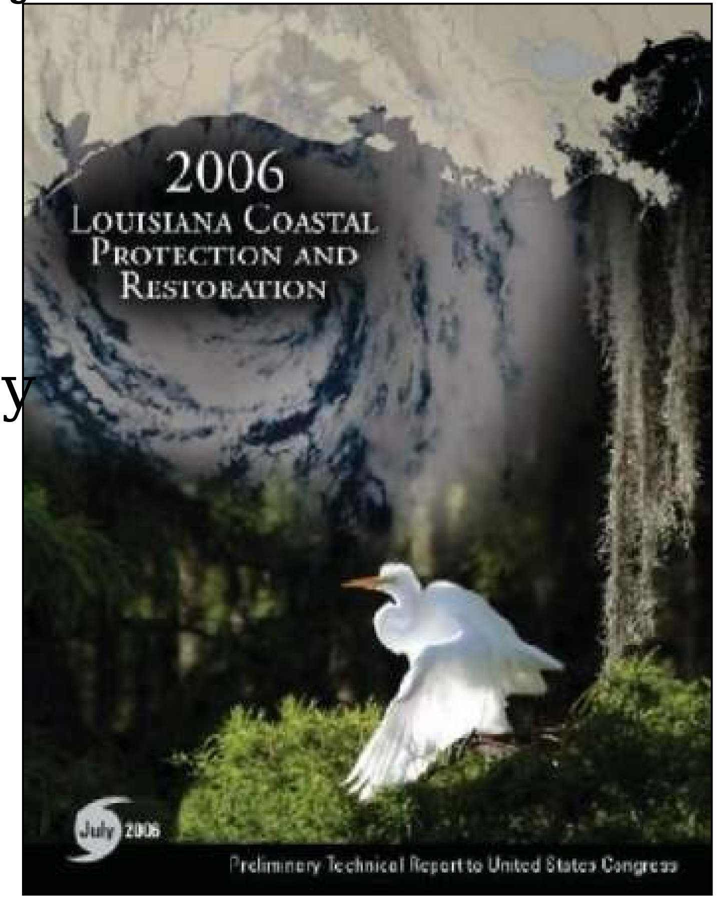


17th Street Canal

Hammond Hwy
Robert E Lee Blvd
Conrad St
Walker St
Mouton St
Chapelle St
Porteous St
Lane St
Bragg St
French St
Germain St
Polk St
Brooks St
Kenilworth St
38TH St
36TH St
34TH St
32ND St
28TH St
26TH St
18TH St
16TH St
12TH St
10TH St
West End Blvd
Wuerpel St
Louisville St
General Haig St
Canal Blvd
Onyx St
Sardonyx St
Wren St
Marconi Dr
Filmore
Scout Island
Demourelles Island
Lilac St
Georgia Ct
Pine St
Cherry St
Carrollton Ave
Sidney St
Florida Blvd
610
Hidalgo St
Navarre Ave
Palm Dr
Stadium Dr
Victory Ave
City Park Ave
Pontchartrain Blvd
Metairie Rd
Carrollton Ave
Feet of Flooding
>8
6 - 8
4 - 6
2 - 4
0 - 2

Louisiana Coastal Protection and Restoration (LaCPR)

- Authorized as 2 year study – post Katrina
- Characterizes hurricane threat and engineering design challenges
- Multiple lines of defense strategy
  - Coastal restoration/protection
  - Structural measures
  - Non-structural features
- Describes need for using risk reduction decision framework
- Collaboration with state of LA
- Final Technical Report – Dec. 07



2006
LOUISIANA COASTAL
PROTECTION AND
RESTORATION

July 2006

Preliminary Technical Report to United States Congress

UNIVERSITY LAKES

Aquatic Ecosystem Restoration

Presented by

Mark Wingate, PE
Senior Project Manager
U.S. Army Corps of Engineers

University Lakes District

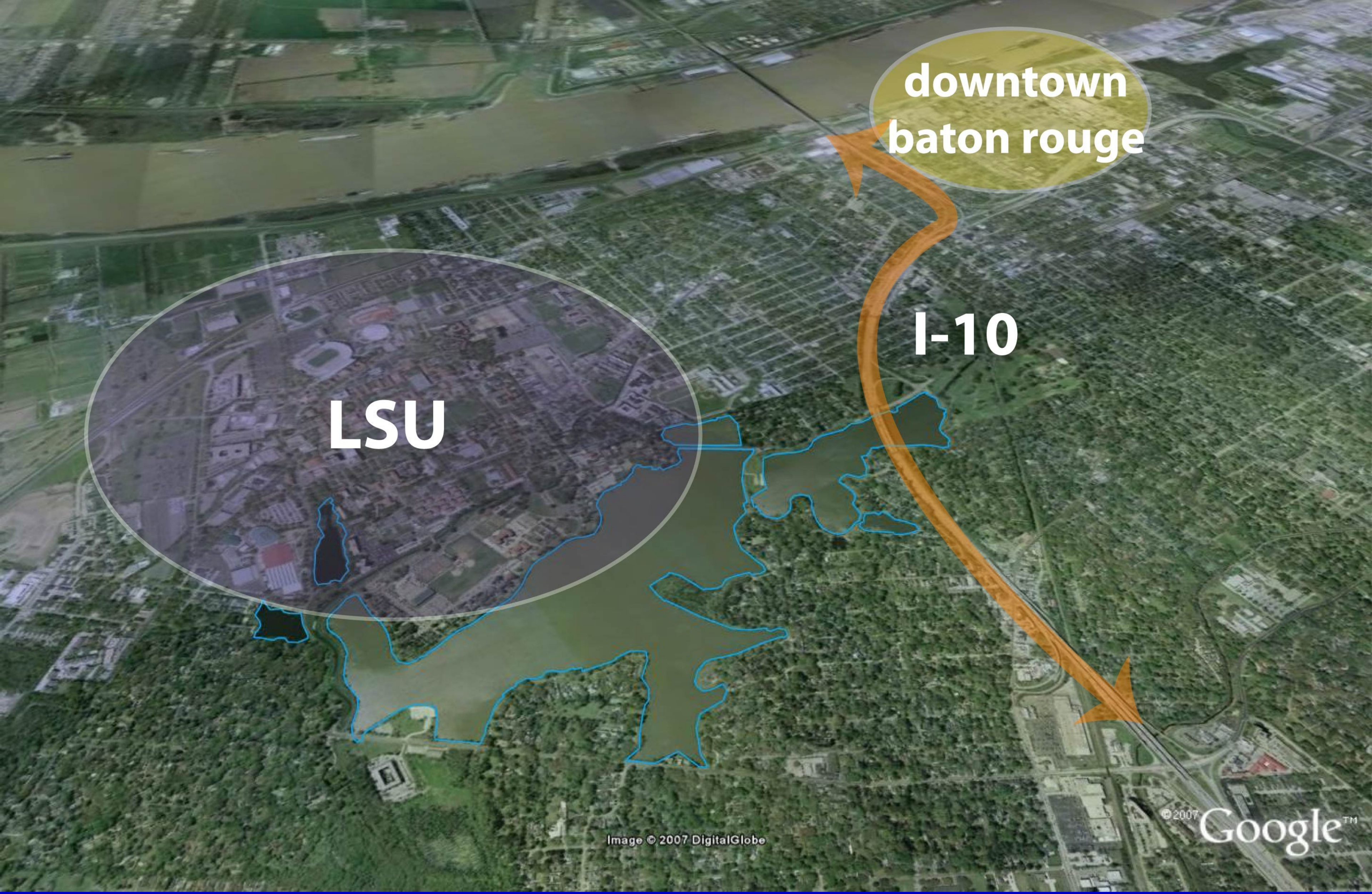
- **Present Project Status**
  - Project Purpose
  - Plan Formulation
  - Draft Alternatives
  - Range of Cost
  - Where to Next

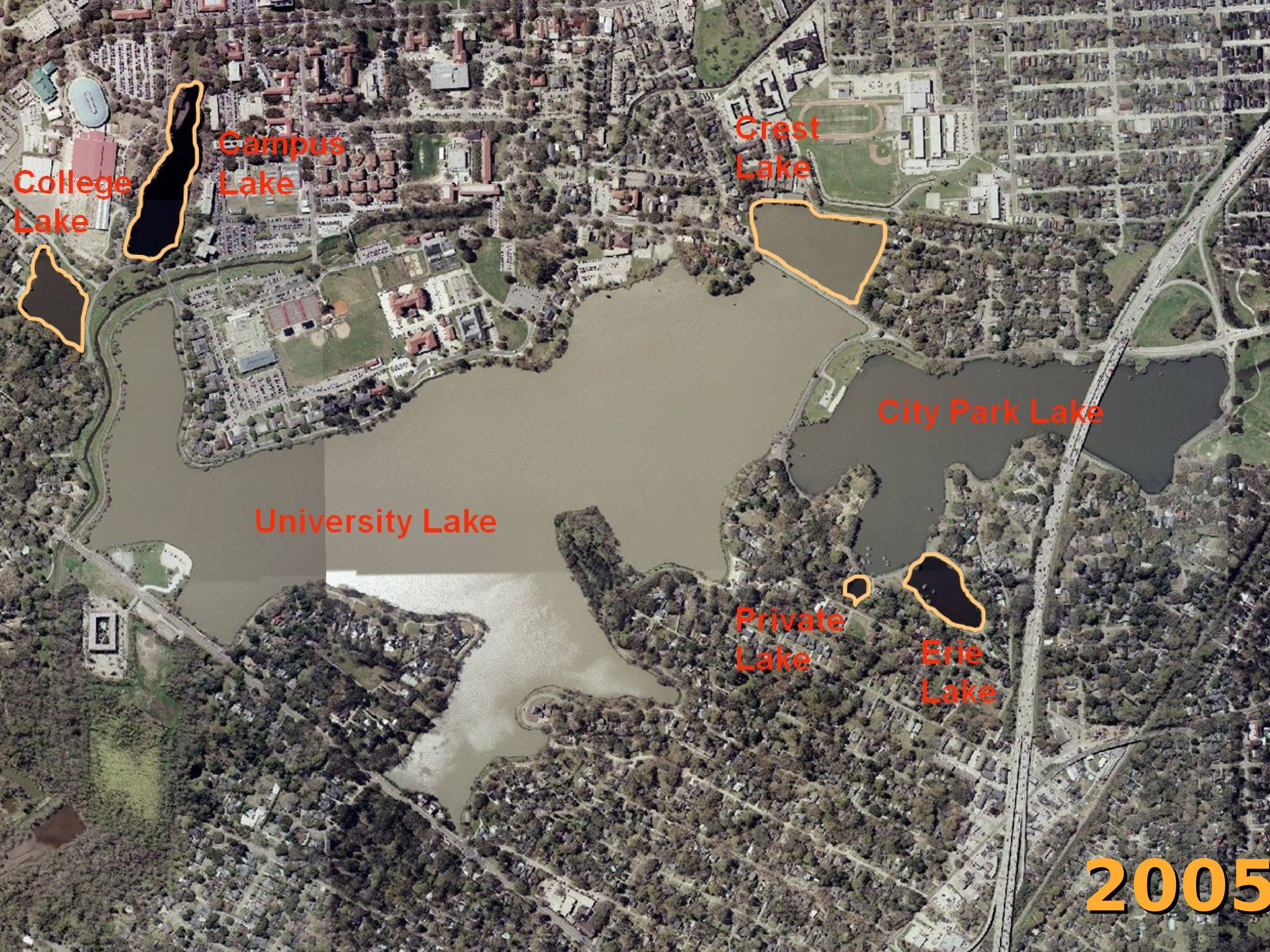
Project Purpose

- **Continuing Authorities Program (CAP) 206**

  "Aquatic Ecosystem Restoration"

- **Project Implementation**
  - Justification is based upon providing enhancements /improvements to the Aquatic Ecosystem of the Lakes
    - Benefits (Average Annual Habitat Units AAHU's)
  - Recommend most cost effective environmentally sound solution


downtown
baton rouge
I-10
LSU
Image © 2007 DigitalGlobe
©2007 Google™


Campus Lake
College Lake
Crest Lake
City Park Lake
University Lake
Private Lake
Erie Lake
2005

Study Progress
University Lakes District

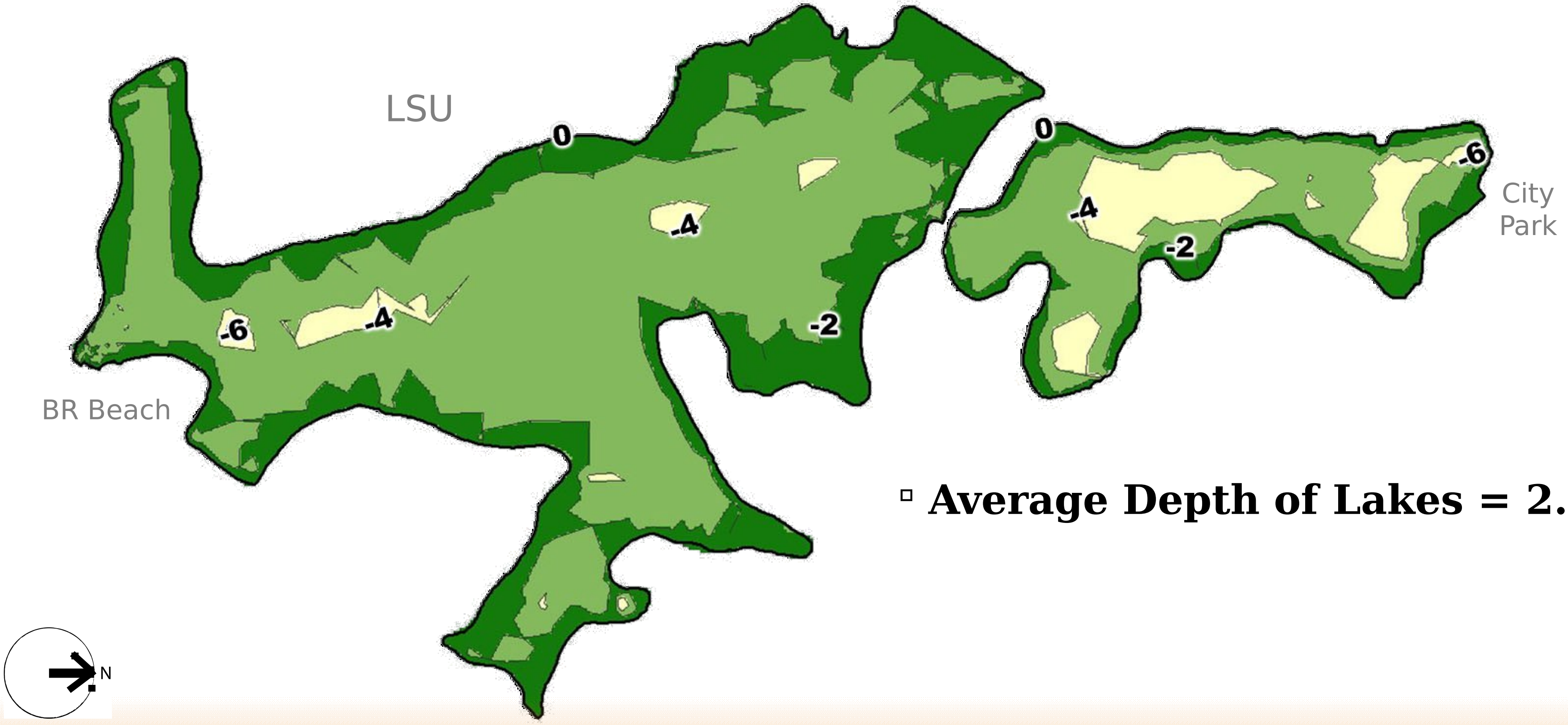
- Initiated Feasibility 2005
- First Public Meeting August 2005
- 12-18 months following Hurricane Katrina
  - MVN focused on Hurricane Recovery Mission
- Progress has continued on this project
- Only one of several CAP projects that continues to receive funding
  - Indicates level of importance

Lake District Inventory

- Literature Review √
- Survey √
- HTRW √
- Sampling Plan √
- Cultural Resources Sites Review √
- Resource agency input

No Apparent Impacts

Existing Conditions


LSU
0
-4
-2
-6
-4
0
-6
-4
-2
City Park
BR Beach
N

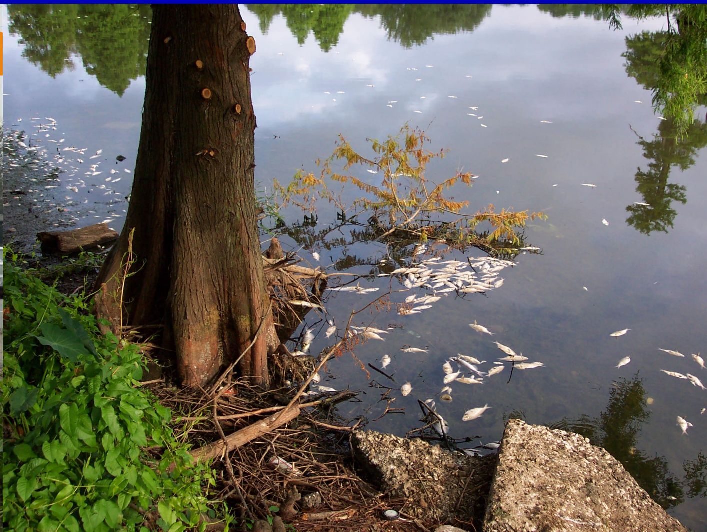
- **Average Depth of Lakes = 2.6**

Identification of Problems

General Problems within the Lakes District

- **Shallow**
- **Poor Water Quality**
- **Fish Kills**

Edges and Fa



Draft Alternatives
Three Major Groups

- No-Action
- Non-Lake Deepening
- Lake Deepening

No-Action

- **Least expensive of all alternatives**
- **No environmental benefits**
- **Poor water quality and odors would continue**
- **Phosphorous would continue to accumulate**
- **Fish kills would continue and likely worsen**
- **Loss of recreation opportunities**
- **Filling of Lakes and vegetation occur**
  - **Similar to Campus Lake**

Non Lake-Deepening Draft Alternatives

- Diversion of Stormwater Runoff
- Flush/Dilute
  - Using Groundwater Wells
  - Using Mississippi River
- Mechanical Aeration
- Wetland Cells
- Best Management Practices (BMPs)

- **Not adequate benefits as a stand-alone project**
- **May be used in conjunction with more comprehensive solution**

Lake Deepening
Draft Alternatives

- Increase water level
- Lake deepening and contouring
  - Hydraulic Dredging
  - Earthmoving

Lake Deepening/Contouring Construction Technique

- **Hydraulic Dredging**
    - **Maintain water level in Lakes during construction**
    - **Most expensive of the Lakes deepening alternatives**
    - **Would remove approximately 50% of the existing phosphorous**
    - **May still result in fish kills**
    - **Would achieve average depth of 5 ft.**
    - **Construction time estimated at 2.5 years**
        - **May be viewed as having “negative aesthetics”**
    - **Lack of precision for slopes and depth**
    - **Reduced ability to remove stumps**

Hydraulic Dredging

Lake Deepening/Contouring Construction Technique

- Earthmoving
  - Lakes would be drained
  - Anticipate high ecosystem restoration benefits for construction cost
  - Direct removal of about 80% of the existing phosphorous
  - Construction would take about one year
  - Achieve Lakes depth of 5 feet
  - Easier removal/placement of stumps
  - Better precision for contouring slopes and depth
  - Allow for potential force main repair/replacement in the dry
  - Management of stormwater from watershed during construction
  - Low operations and maintenance costs

Earthmoving

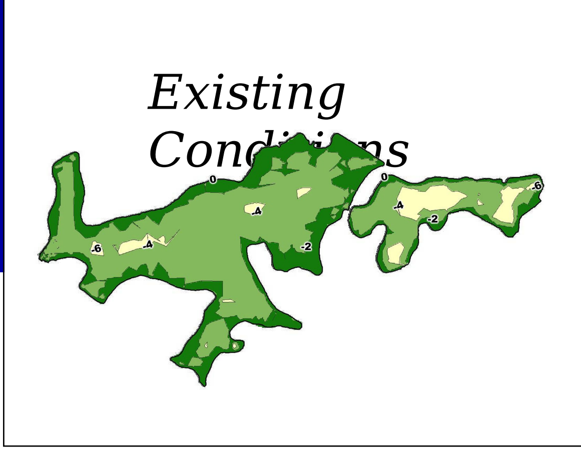
Your Tax Dollars at Work
BREC's City Park Renovations
Front View Tennis Courts
Picnic Hill Playground
Custom Lighting
New Trails
Plan View of Art Gallery and Picnic Hill Areas
$4,600,000
BREC Commission
Collis Temple Jr.-Chairman
Carroll Breeden-Vice Chairman
Herbert "Hal" Butt-Treasurer
Audrey Nabors-Jackson
Warren Pratt Jr.
Darrell Glasper
Bill Benedetto
Marlyn Goins-McCants
John Allphin
William G. Palmer, Superintendent
Imagine your Parks
www.brec.org
BREC

Lake Deepening Outcomes

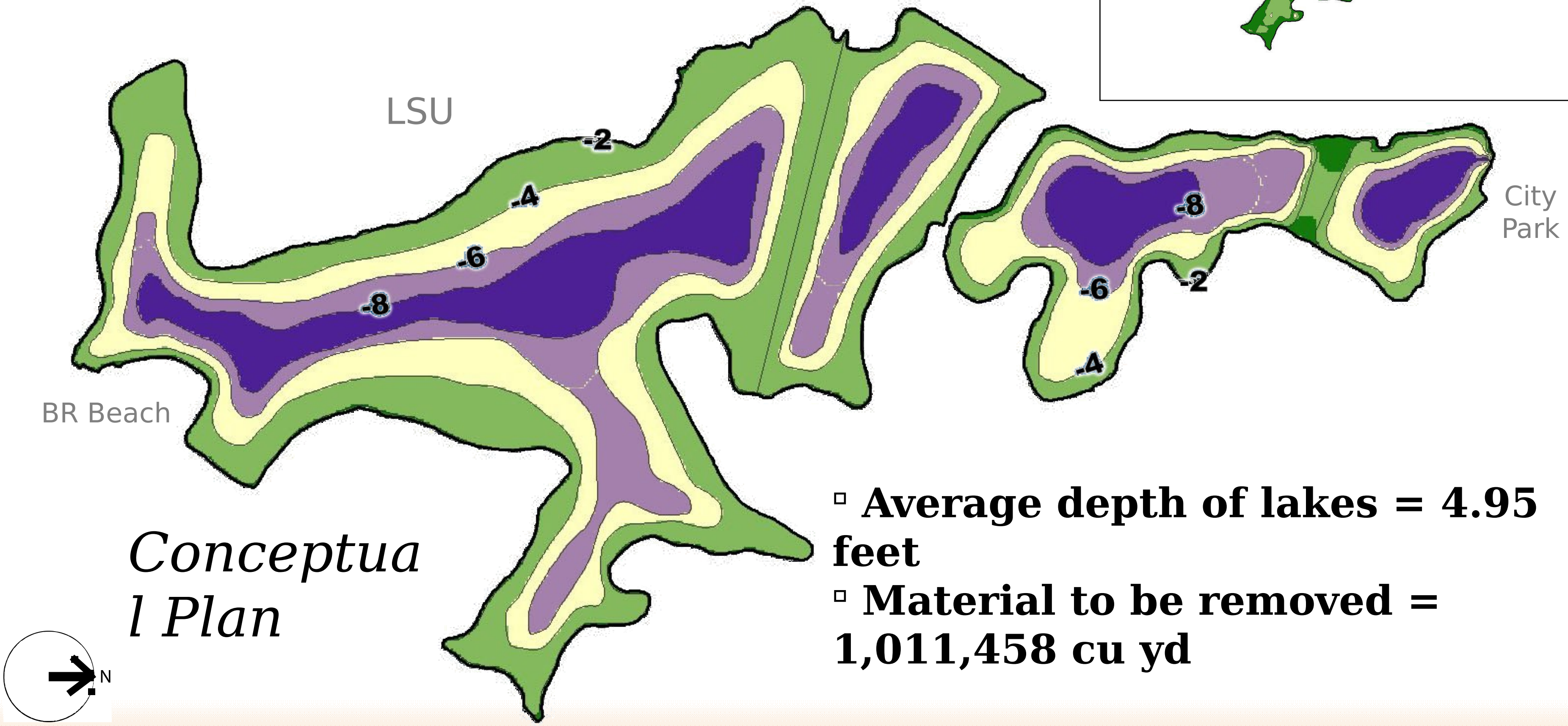
- **Outcome 1** – Contour and Dispose
- **Outcome 2** – Contour, Create wetland/BLH, and Dispose
- **Outcome 3** – Contour, Build Proposed Plans, and Dispose
- **Outcome 4** – Contour, Build Proposed Plans, and Other Potential Beneficial Uses

*Management Practices would be recommended under each alternative

Outcome 1: Contour Lakes + Offsite Disposal



Existing Conditions

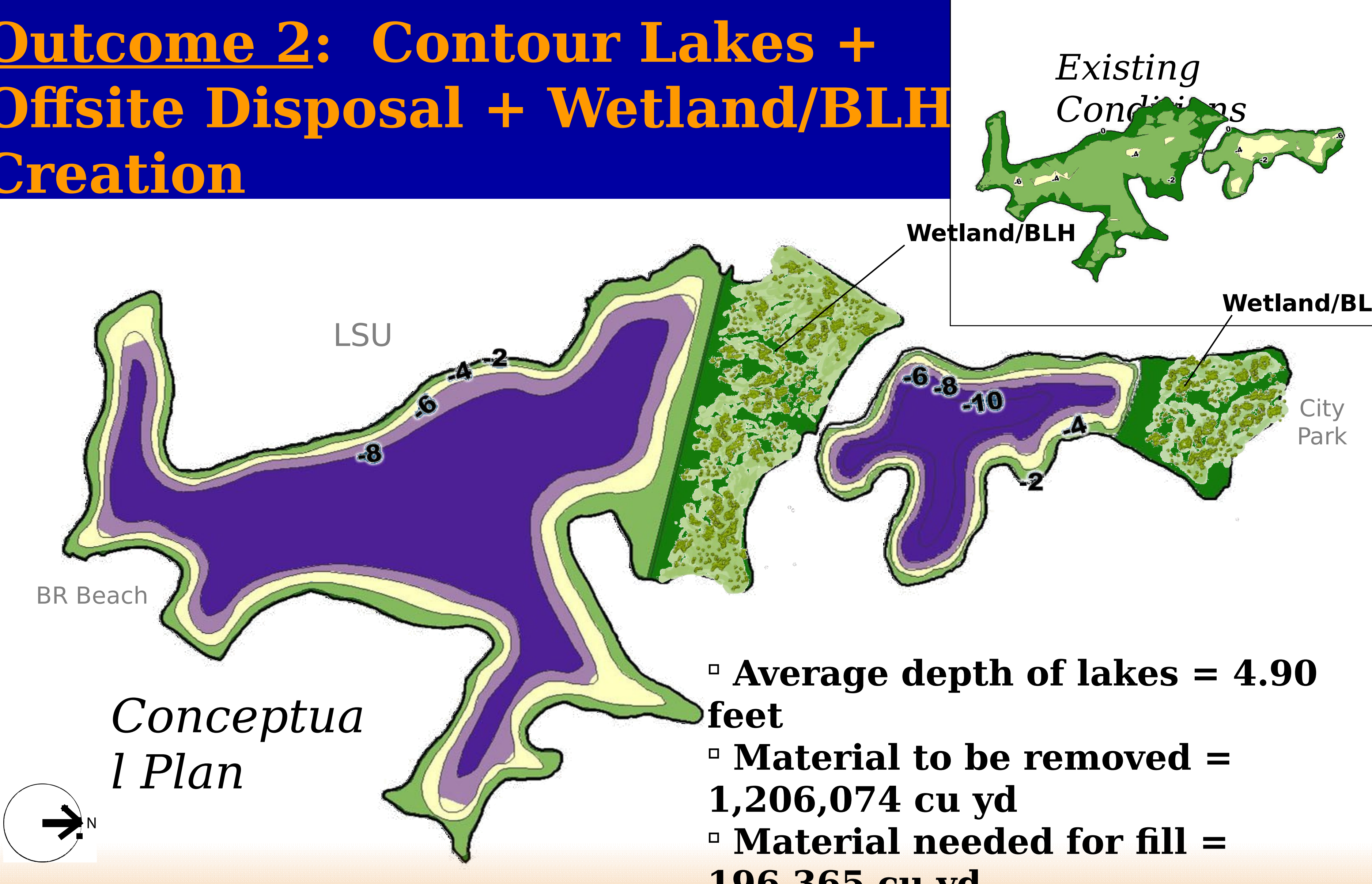


LSU
-2
-4
-6
-8
BR Beach
-8
-6
-2
-4
City Park
N

Conceptual Plan

- **Average depth of lakes = 4.95 feet**
- **Material to be removed = 1,011,458 cu yd**

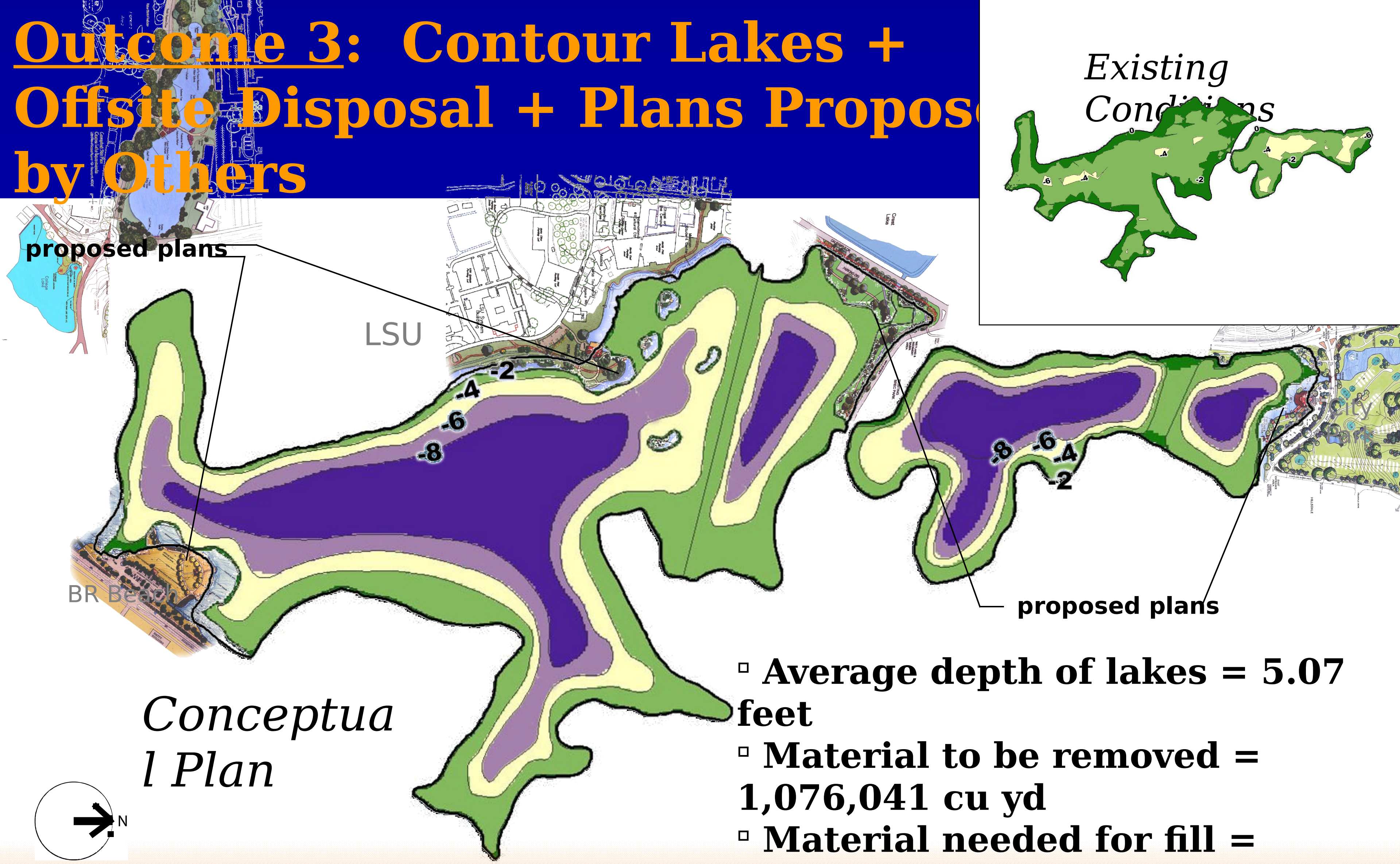
Outcome 2: Contour Lakes + Offsite Disposal + Wetland/BLH Creation


Existing Conditions
0
0
-6
-4
-2
-4
-2
-6
-4
Wetland/BLH
Wetland/BL
LSU
-2
-4
-6
-8
-6
-8
-10
-4
-2
City Park
BR Beach
Conceptual Plan
N

- Average depth of lakes = 4.90 feet
- Material to be removed = 1,206,074 cu yd
- Material needed for fill = 196,365 cu yd
- Material to be disposed = 1,009,709 cu yd

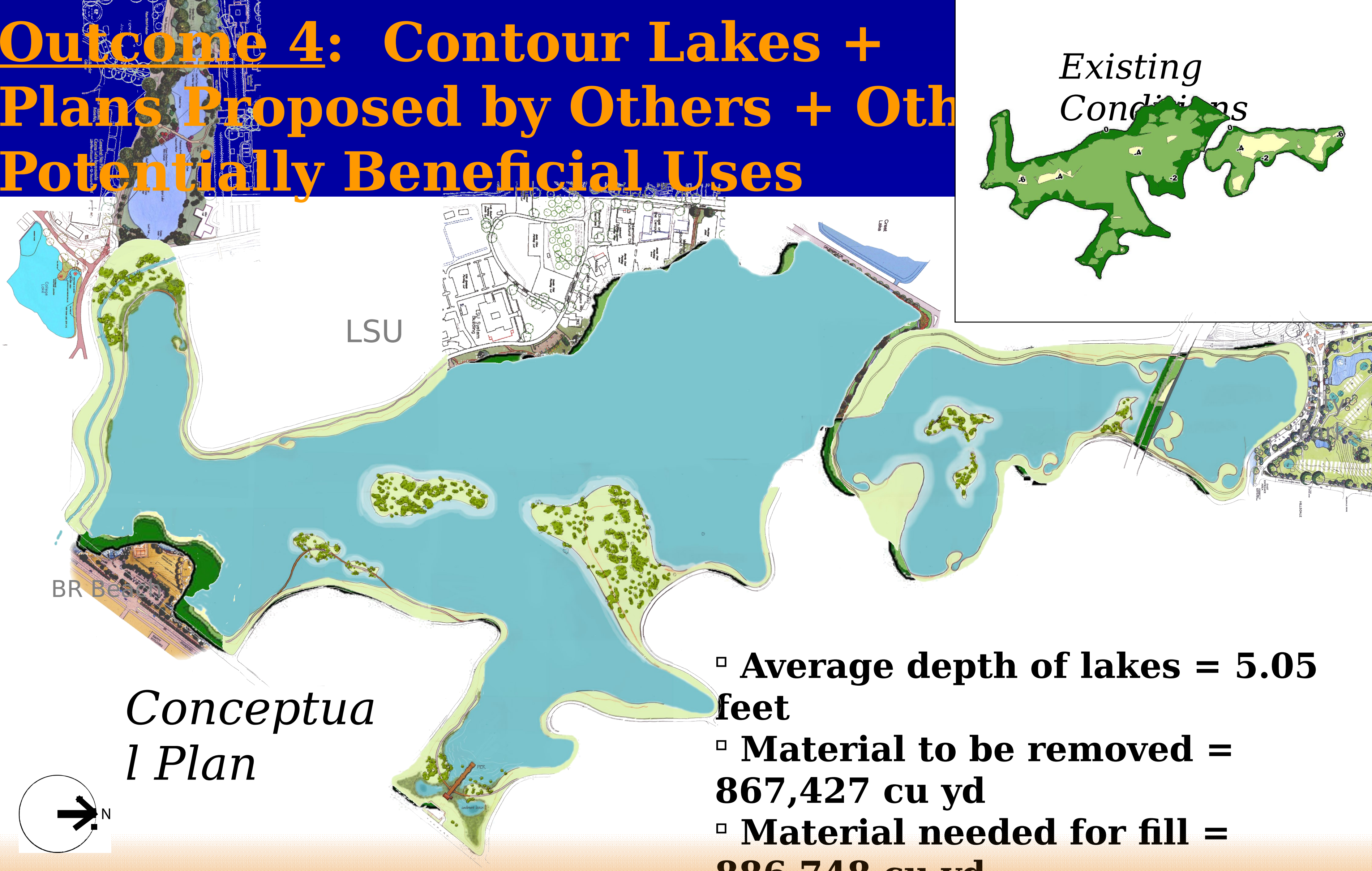
Lakes District CAP 206 Aquatic Ecosystem

Outcome 3: Contour Lakes + Offsite Disposal + Plans Propos by Others


Existing Condi ns
0
-4
-6
-2
proposed plans
LSU
-2
-4
-6
-8
BR Beach
City Park
-8
-6
-4
-2
proposed plans
Conceptual Plan
N

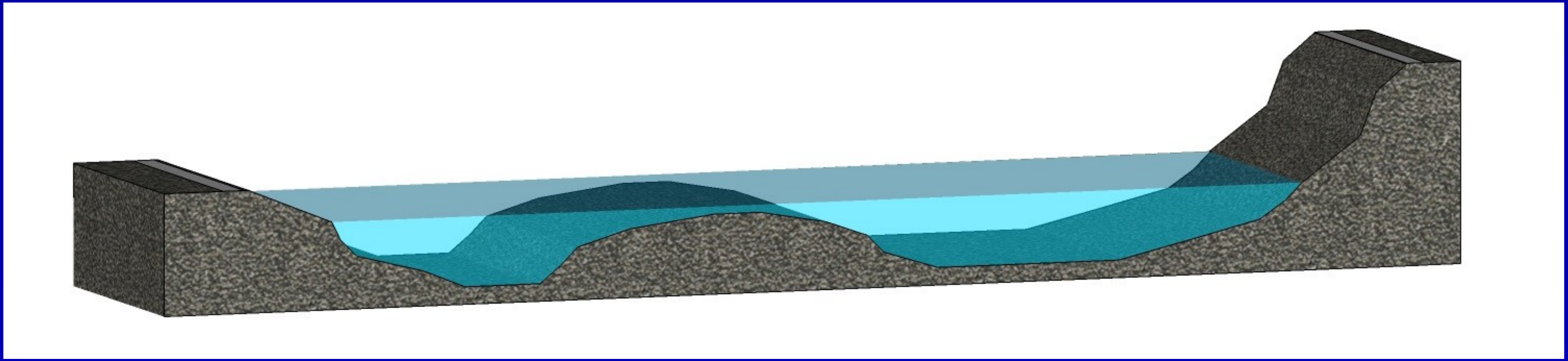
- Average depth of lakes = 5.07 feet
- Material to be removed = 1,076,041 cu yd
- Material needed for fill = 211,833 cu yd
- Material to be disposed = 864,208 cu yd

Outcome 4: Contour Lakes + Plans Proposed by Others + Oth Potentially Beneficial Uses


Existing Conditions
0
0
-4
-2
-6
-6
-4
-4
-2
LSU
BR Beach
Conceptual Plan
N

- Average depth of lakes = 5.05 feet
- Material to be removed = 867,427 cu yd
- Material needed for fill = 886,748 cu yd
- Material to be disposed = -19,321 cu yd

Subsurface Islands



Provides additional fish habitat benefits without obstructing lake views

Preliminary Costs

- **Lake Deepening Draft Alternatives**
  - Dredging $35 - $50M
  - Earth Moving $7 - $15M
- **Project Cost Sharing**
    - 65% Federal ~ $5M
    - 35% Non-Federal ~ $2.7M

July 24, 2007 Public Meeting

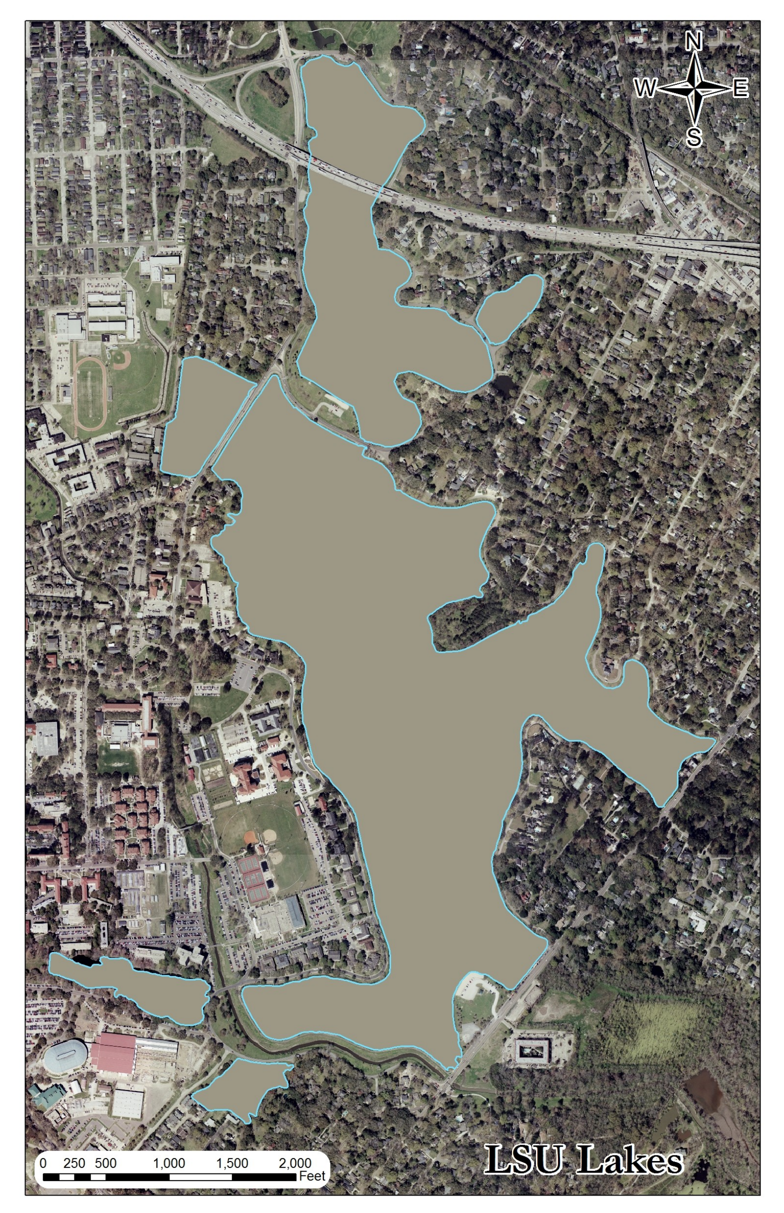
Public Comments

- No action not an option
- Deepening way to go
- Earthmoving preferred over dre
- Get it done and do it right!

Public Comments

- *“Prefer submerged islands”*
- *“Material from lake deepening should be used for maximum rec benefits”*
- *“110% for draining and earth-moving alternative…do it right”*
- *“Not wild about wetlands or islands”*
- *“Concentrate sediment traps at storm water outfalls”*
- *“Like aeration fountain in lakes”*
- *“Like the islands idea and the wetlands creation”*
- *“Concerned about funding interruptions”*
- *“Need exists to get rid of existing phosphorous load to restore lakes”*

Where to next?


N
W
E
S
0 250 500 1,000 1,500 2,000
Feet
LSU Lakes

- Incorporate/Consider Public comments
- Complete Draft Feasibility Study by Dec 2007
- MVD Approval & Execute PCA by March 2008*
- Develop P&S Dec 2008*
- Advertise and Award March 2009*

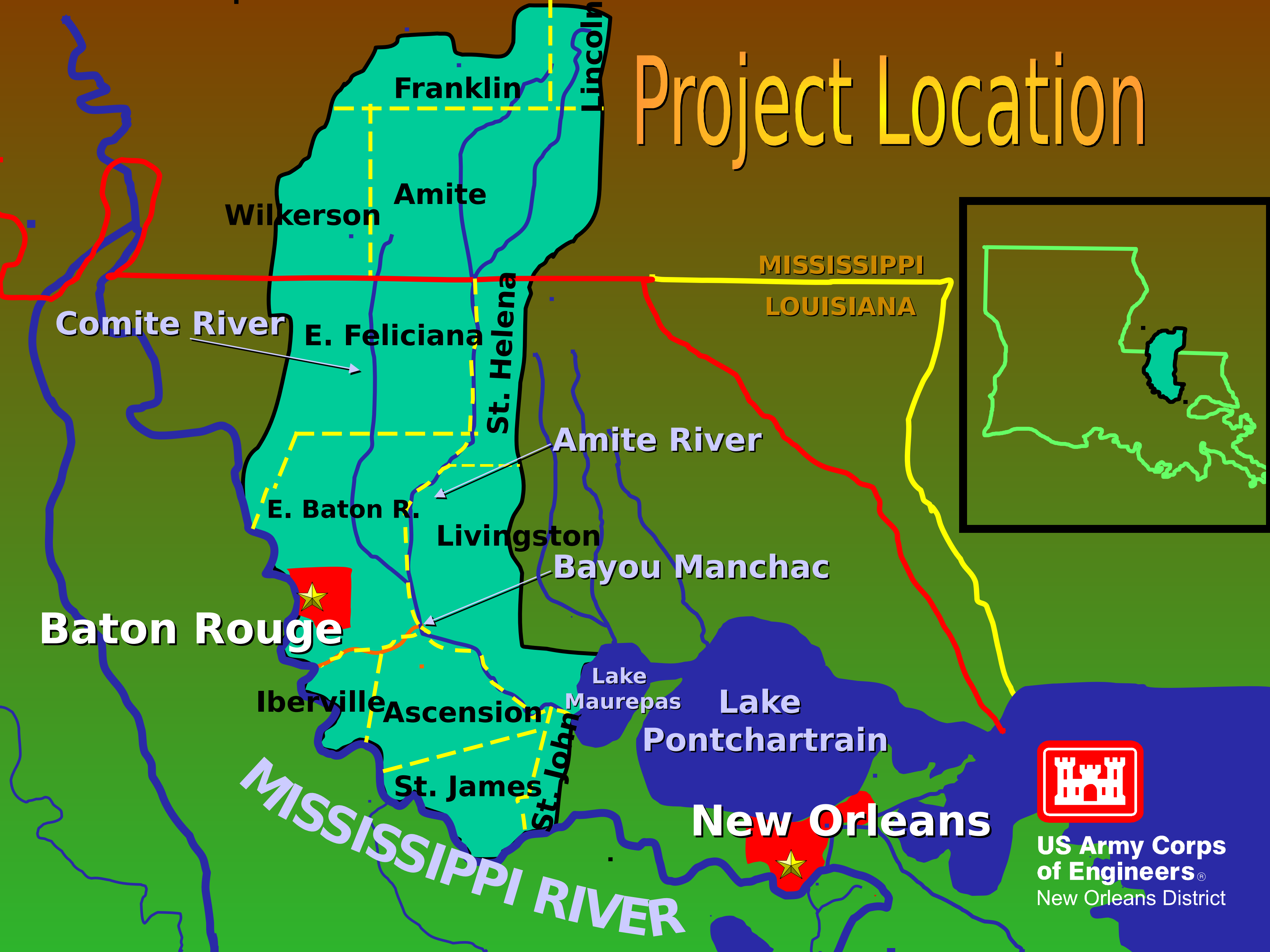
Schedule contingent on funding

EAST BATON ROUGE PARISH, LA
FLOOD CONTROL PROJECT

Jason P. McCrossen
Project Manager

US Army Corps of Engineers®
New Orleans District

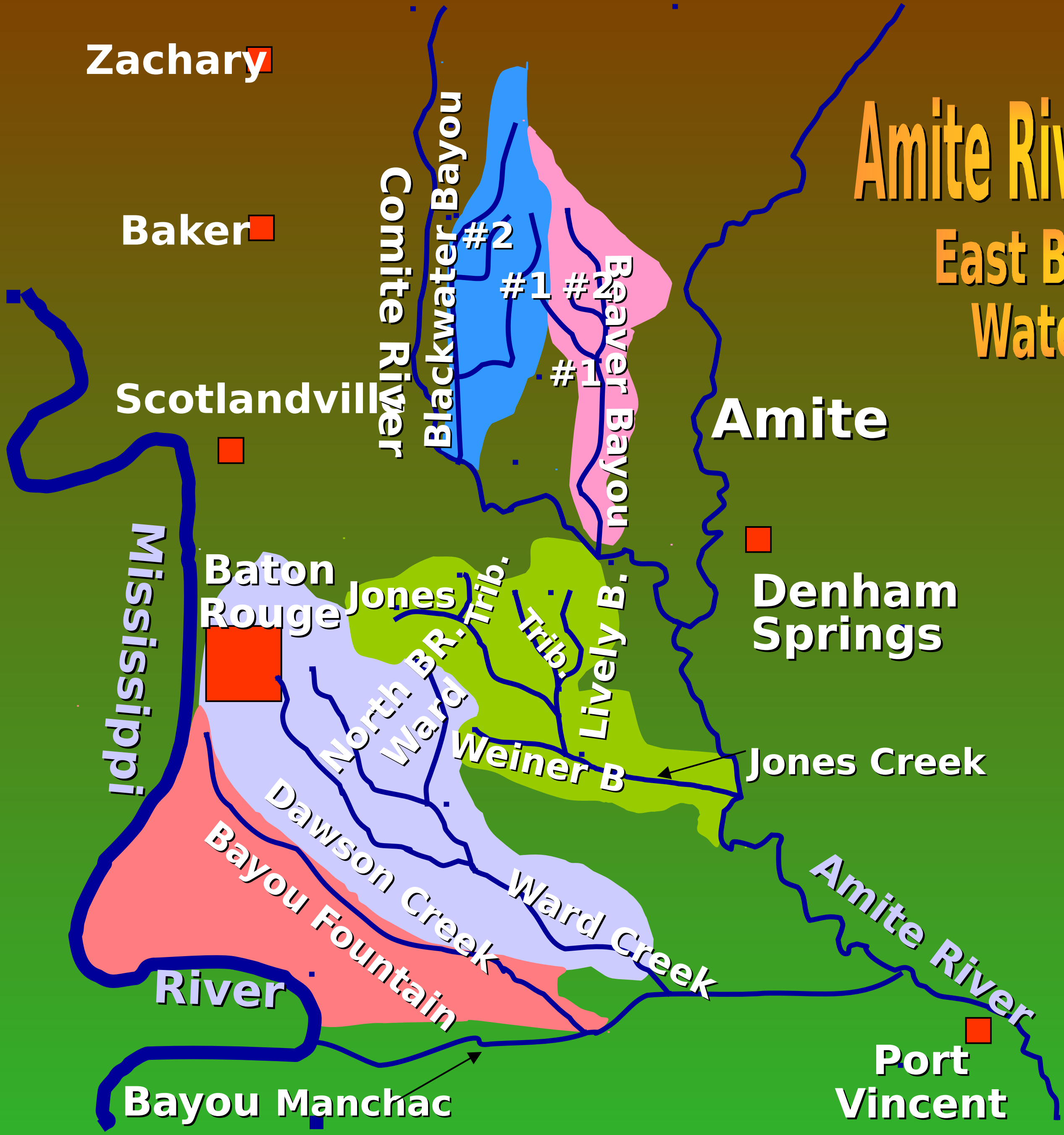
Project Location


Franklin
Lincoln
Amite
Wilkerson
MISSISSIPPI
LOUISIANA
Comite River
E. Feliciana
St. Helena
Amite River
E. Baton R.
Livingston
Bayou Manchac
Baton Rouge
Iberville
Ascension
Lake Maurepas
Lake Pontchartrain
St. James
St. John
MISSISSIPPI RIVER
New Orleans

US Army Corps of Engineers®
New Orleans District

Amite River & Tributaries, La.

East Baton Rouge Parish Watershed Locations


Zachary
Baker
Scotlandville
Comite River
Blackwater Bayou
#2
#1
#2
#1
Beaver Bayou
Amite
Denham Springs
Baton Rouge
Jones
Trib.
North BR. Trib.
Trib.
Lively B.
Ward
Weiner B
Jones Creek
Mississippi River
Dawson Creek
Bayou Fountain
Ward Creek
Amite River
Port Vincent
Bayou Manchac

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New Orleans District

st Baton Rouge, LA Project Descript

★Purpose: to provide flood control improvements for East Baton Rouge Parish, including the City of Baton Rouge

★ Problems: flooding due to headwater and backwater overflow of the Amite River and tributary streams.

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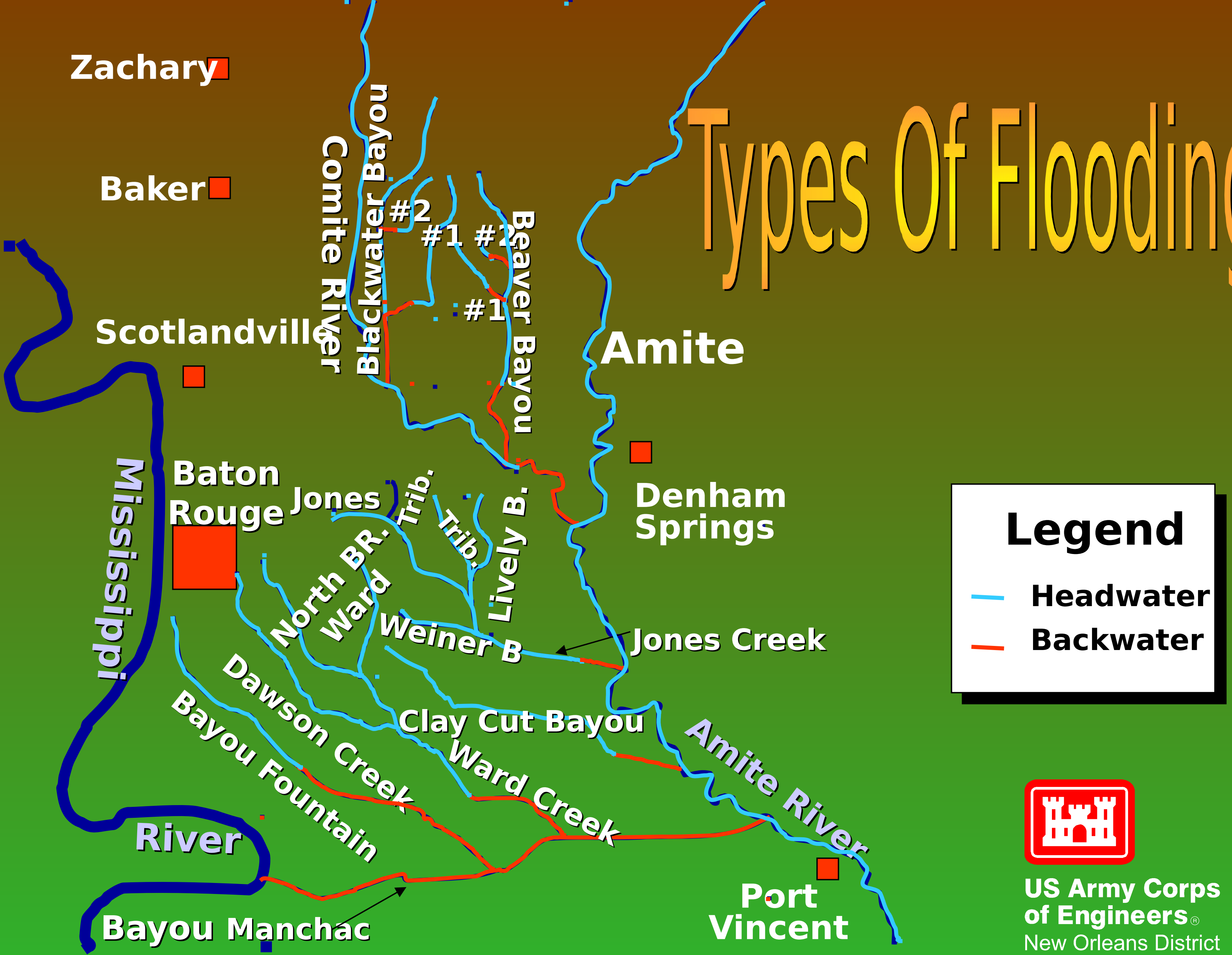
of Engineers®
New Orleans District

- Maximum flood of record:
  - occurred in 1983
  - Amite River basin damages - $245 Million ('97 dollars)
  - East Baton Rouge Parish damages - $93 Million ('97 dollars). 1,615 structures flooded

Types Of Flooding


Zachary
Baker
Scotlandville
Baton Rouge
Comite River
Blackwater Bayou
#2
#1
#2
#1
Beaver Bayou
Amite
Denham Springs
Mississippi River
Jones
Trib.
Trib.
Lively B.
North BR.
Ward
Weiner B
Jones Creek
Dawson Creek
Bayou Fountain
Clay Cut Bayou
Ward Creek
Amite River
Bayou Manchac
Port Vincent
Legend
Headwater
Backwater

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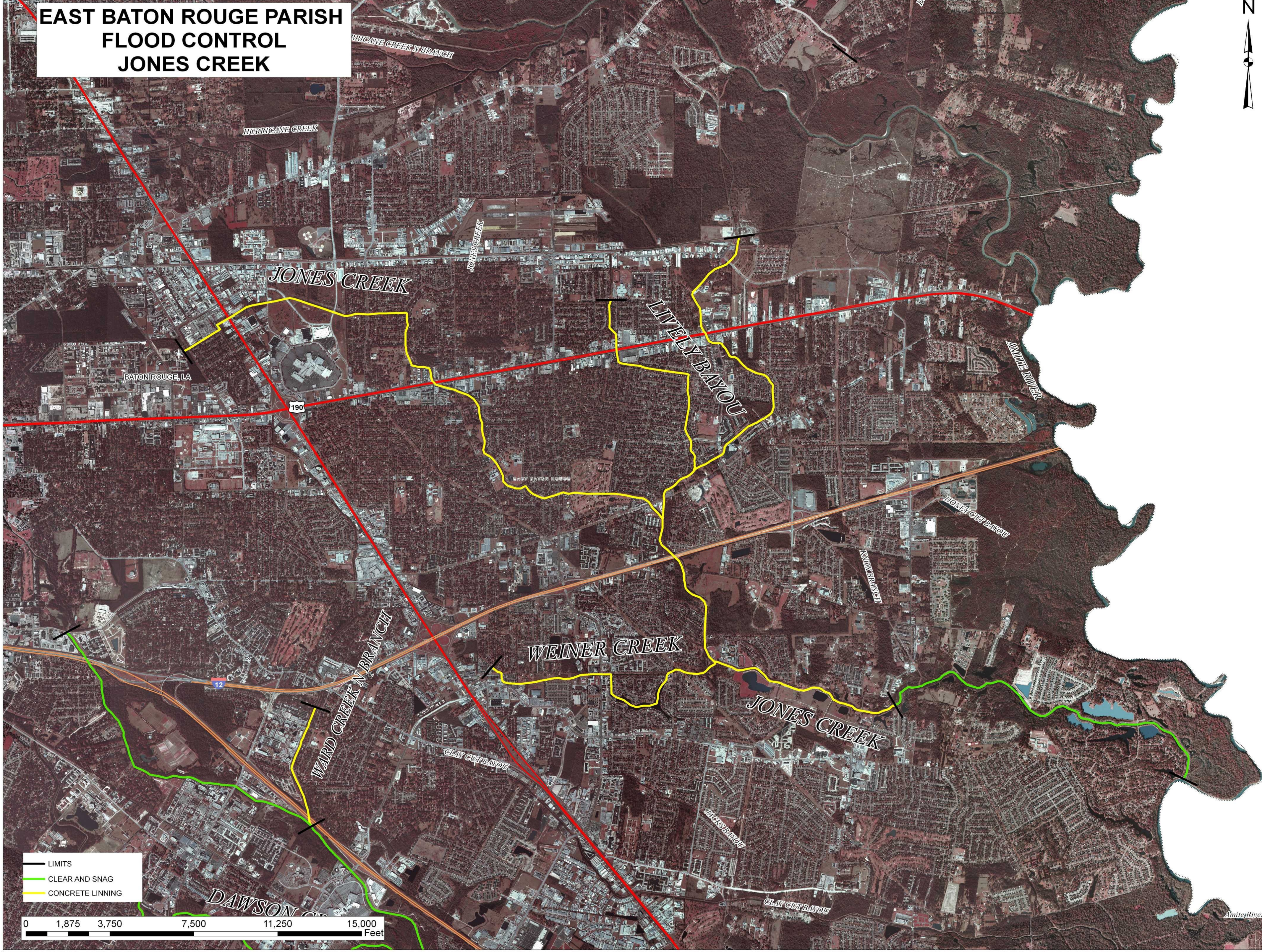
EAST BATON ROUGE PARISH
FLOOD CONTROL
JONES CREEK


N
HURRICANE CREEK N BRANCH
HURRICANE CREEK
JONES CREEK
JONES CREEK
LIVELY BAYOU
BATON ROUGE, LA
190
EAST BATON ROUGE
AMITE RIVER
HONEY CUT BAYOU
KNOX BRANCH
WEINER CREEK
WARD CREEK N BRANCH
12
JONES CREEK
CLAY CUT BAYOU
JACKS BAYOU
CLAY CUT BAYOU
DAWSON CR
Amite River
LIMITS
CLEAR AND SNAG
CONCRETE LINNING
0
1,875
3,750
7,500
11,250
15,000
Feet

st Baton Rouge, LA Project Descript

- Channel modifications on the following watersheds were recommended:
  - Jones Creek and Tributaries
  - Ward Creek and Tributaries
  - Beaver Bayou
  - Blackwater Bayou
  - Bayou Fountain

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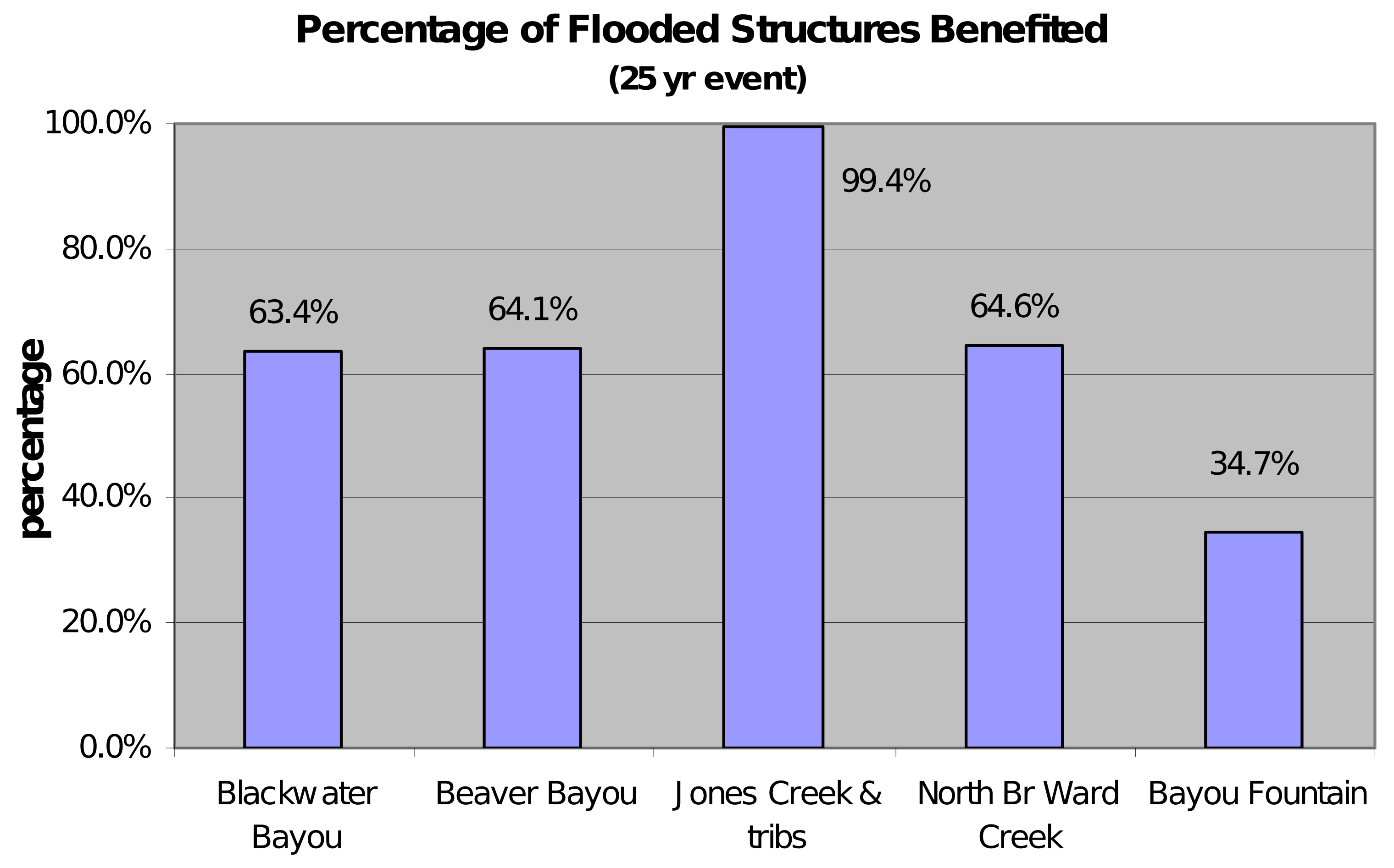
of Engineers®
New Orleans District

- Recommended Plan - total 66 miles of improvements:
  - 25 miles minimal clearing and snagging
  - 24 miles of earthen channel enlargement
  - 17 miles channel concrete lining

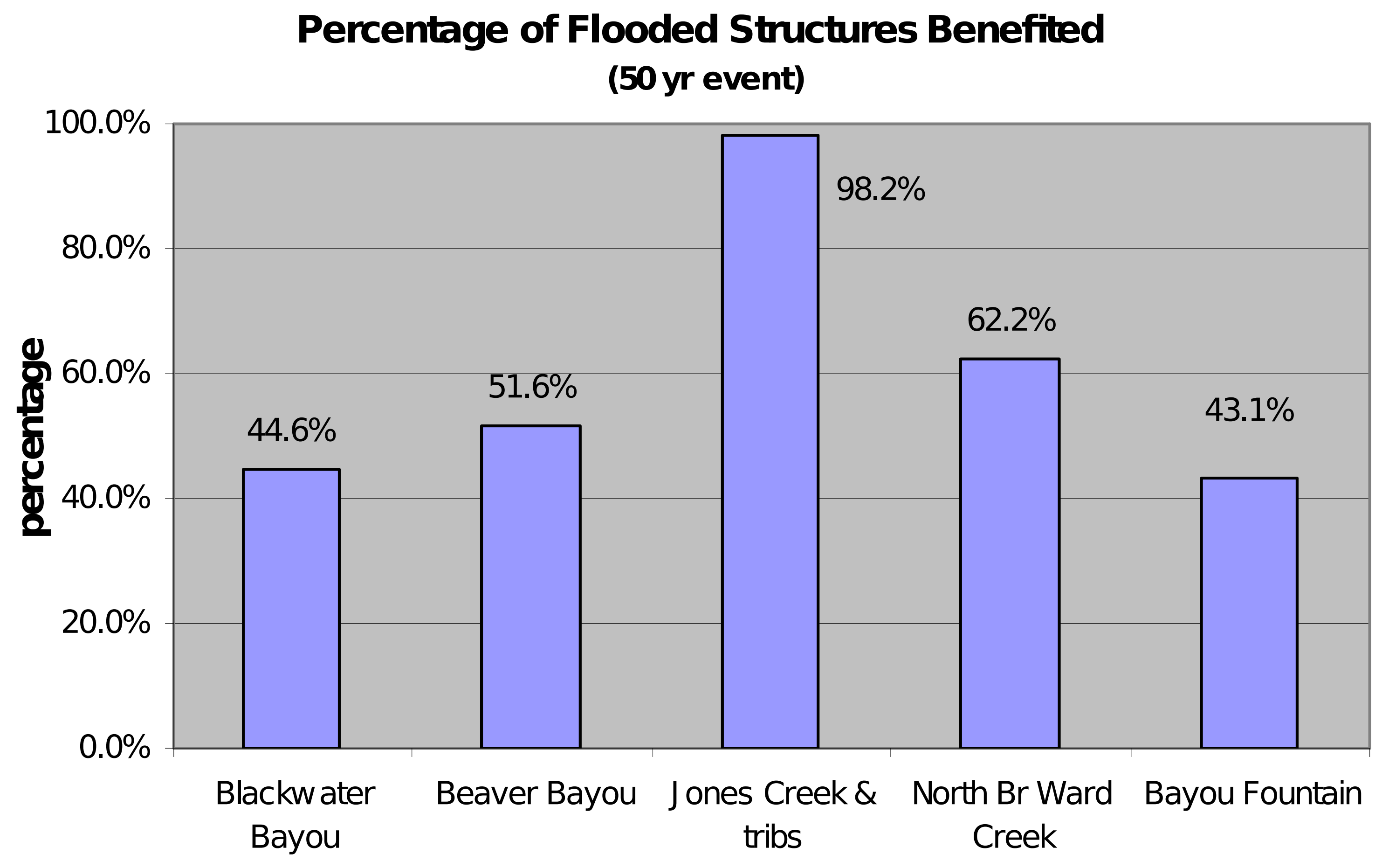
ast Baton Rouge, LA Project Benefit

- The Comite River Diversion project *will* benefit the northern part of the Parish (protection from backwater flooding from the Amite River)
- However, the Comite River Diversion project *does not* provide protection to EBR residents during local rainfall events
- The EBR Parish Flood Control project will protect urbanized areas from headwater events (rainfall within the parish). Parish-wide benefits (CRD in place):
  - Of the 3,010 structures flooded (25 year event), 1,929 (or 64%) are benefited (no longer flooded)
  - Of the 4,290 structures flooded (50 year event), 2,536 (or 59%) are benefited (no

ast Baton Rouge, LA Project Benefit

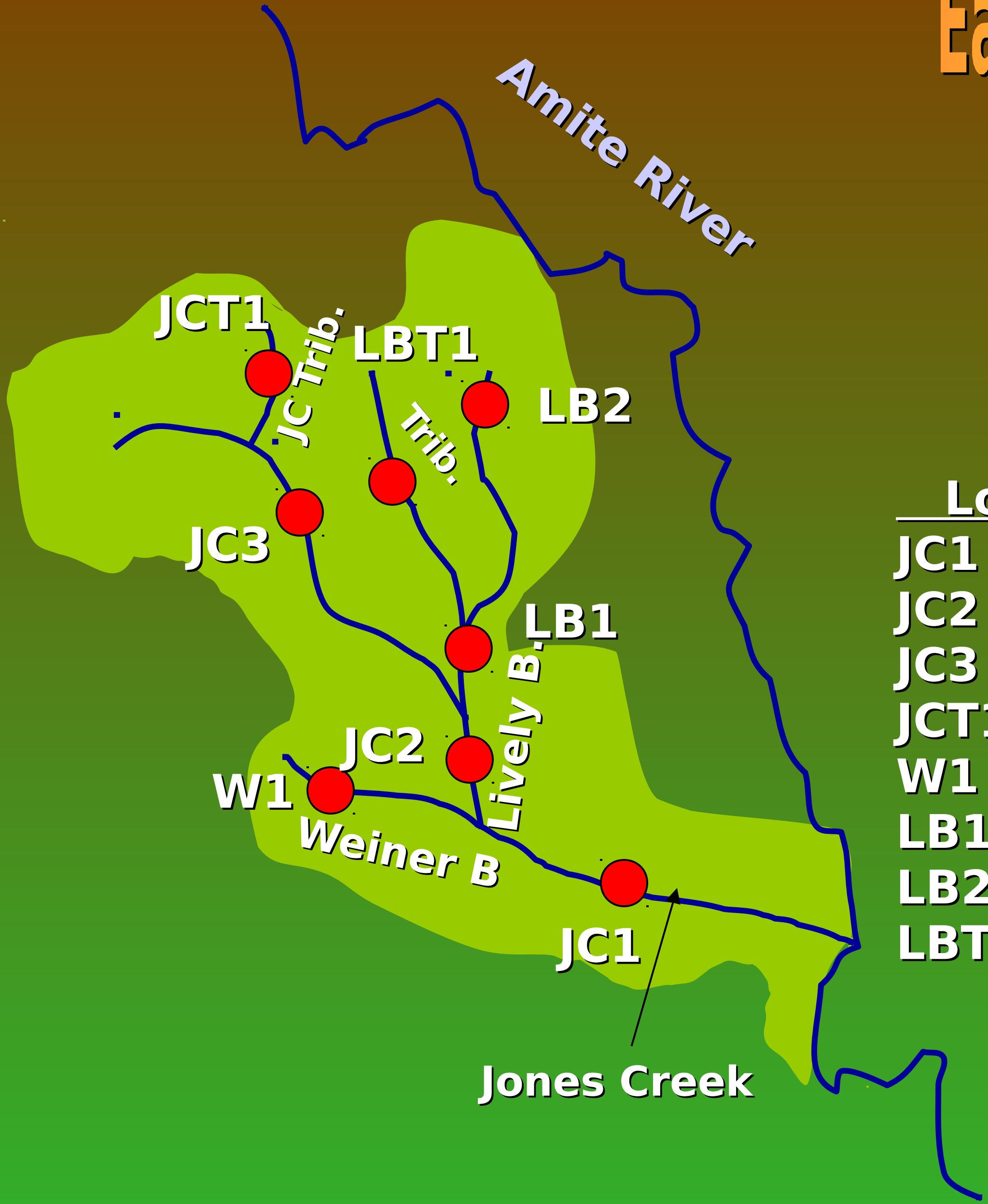


ast Baton Rouge, LA Project Benefit



East Baton Rouge Parish, LA
Jones Creek & Tribs

(Comite R Diversion in place)


Amite River
JCT1
JC Trib.
LBT1
Trib.
LB2
JC3
LB1
Lively B.
JC2
W1
Weiner B
JC1
Jones Creek

With Project Stage Lowering

Location	10 yr	100 y
JC1 (J Creek Rd)	2.5’	1.9’
JC2 (S Harrells Ferry Rd)		6.6’
JC3 (US 190)	5.8’	6.0’
JCT1 (W Tams Rd)	6.8’	6.7’
W1 (Cedar Crest Ave)		3.1’
LB1 (Old Hamm Hwy)	6.4’	4.9’
LB2 (S Flannery nr RR)		3.8’
LBT1 (US 190)		5.6’

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ast Baton Rouge, LA Project Statisti

- **Draft Feasibility and EIS completed in September 1993**
- ★ **Chief of Engineers Report: December 23, 1996**
- **PED started Summer 1996**
- **Total First Cost of the plan is $187,000,000 ('07 dollars)**
- **Benefit-to-Cost ratio: 2.5:1.**
- **Local Sponsor: East Baton Rouge Parish**
- **FY07 Efforts:**
  - **Sign Project Cooperation Agreement with EBR Parish (WRDA passage)**
  - **Complete Plans and Specs for Jones Creek #1**

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New Orleans District

AMITE RIVER BASIN
DRAINAGE AND WATER CONSERVATION DISTRICT

COMITE RIVER DIVERSION PROJECT

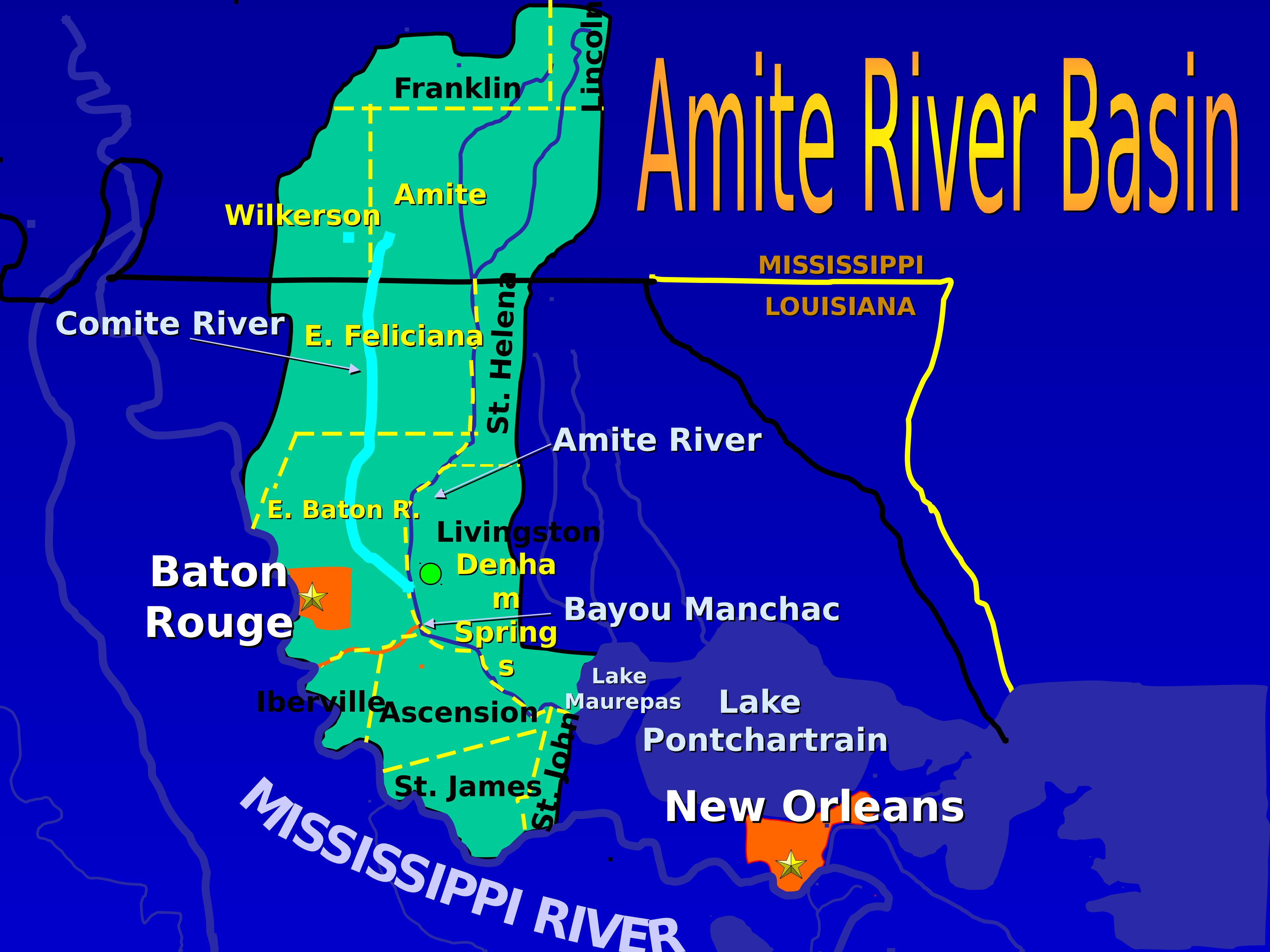
U. S. ARMY CORPS OF ENGINEERS

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

AMITE RIVER BASIN DRAINAGE AND WATER CONSERVATION DISTRICT

CITY OF BATON ROUGE-PARISH EAST BATON ROUGE

Amite River Basin


Franklin
Lincoln
Amite
Wilkerson
MISSISSIPPI
LOUISIANA
Comite River
E. Feliciana
St. Helena
Amite River
E. Baton R.
Livingston
Denham Springs
Baton Rouge
Bayou Manchac
Lake Maurepas
Lake Pontchartrain
Iberville
Ascension
St. John
St. James
New Orleans
MISSISSIPPI RIVER

Project Purpose and Features

- **Provide flood protection for the residents of the Comite River Basin.**

- **Construction of a 12 mile long diversion channel from the Comite River to Mississippi River**

- **Combination of control structures, levees, pumps, and emergency spillway .**

LOCAL SPONSORS

- Louisiana Department of Transportation and Development (LA DOTD) and the Amite River Basin and Water Conservation District (ARBC) are the non-Federal Sponsors for construction.

- City of Baton Rouge-Parish of East Baton Rouge (CITY-PARISH) is the non-Federal Sponsor for operation, maintenance, repair, replacement and rehabilitation (OMRR&R). and Flood Plain Management.

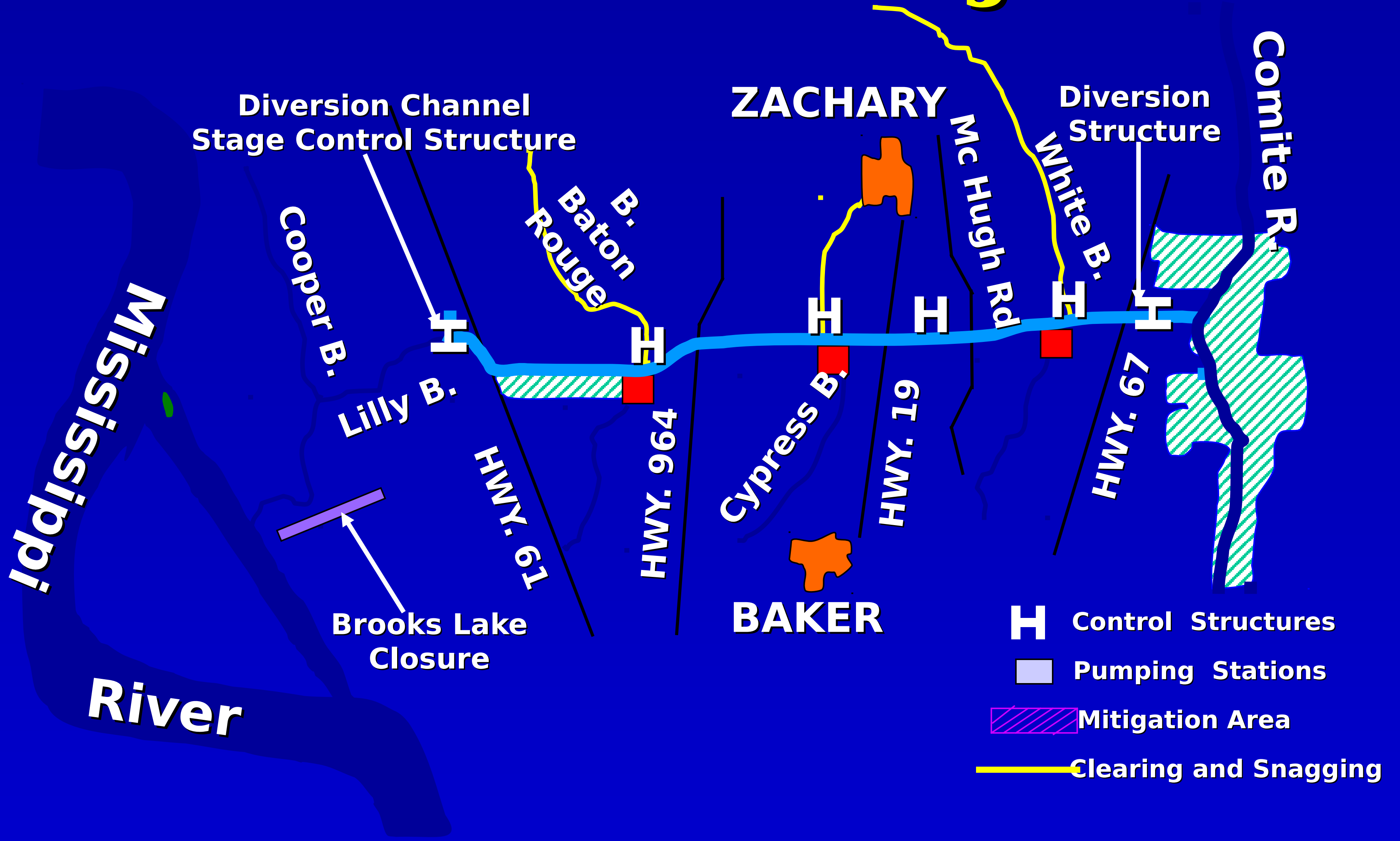
- ARBC is the non-Federal for Flood Plain Management.

Project Cost

	Authorized (Oct 95 P/L)	Current Project Estimate * (Oct 06 P/L)
Federal Cost	$ 70,570,000	$ 121,800,000
Non-federal Cost	$ 51,023,000	$ 52,200,000
Total Project Cost	$121,600,000	$ 174,000,000

* Based on Incremental Estimate, increase due to price escalation. Cost do not reflect inflation through the construction period. Current estimate reflects highway bridges cost shift to total project cost as a result of WRDA 1999.

COMITE RIVER DIVERSION PROJECT


Diversion Channel Stage Control Structure
ZACHARY
Mc Hugh Rd
Diversion Structure
Comite R.
White B.
B. Baton Rouge
Cooper B.
Lilly B.
Mississippi
River
HWY. 61
HWY. 964
Cypress B.
HWY. 19
HWY. 67
Brooks Lake Closure
BAKER
H
H Control Structures
Pumping Stations
Mitigation Area
Clearing and Snagging

Highway Relocations

- LA Hwy 67 (Plank Road)
- McHugh Road
- LA Hwy 19 (Baker - Zachary Hwy)
- Old Baker Road Bypass
- LA Hwy 964
- Carney Road
- Bypass Barnett Road Bypass
- U.S. Hwy 61

Utility Relocations

- 15 Oil and Gas Pipelines
- 24 Local Utility Service Pipelines
- 48 Power, Telephone & Cable Lines

Railroad Relocations

- Kansas City Southern Railroad
- National Canadian Illinois Central Railroad

CURRENT STATUS

- **Constructing 2nd of 17 contracts, Lilly Bayou Control Structure, Phase II is ongoing**
  - **Contractor: B.K. Construction**
    Mandeville, LA
  - **Cost: $27.5 million**
  - **Construction completion: Jun 2008**

for more information…

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University Lakes – Mark Wingate, Senior Project Manager
Mark.R.Wingate@mvn02.usace.army.mil
504.862.2512

EBR Flood Control - Jason McCrossen, Project Manager
Jason.P.McCrossen@mvn02.usace.army.mil
504.862.1723

Comite - Antoine Jackson, Project Manager
Antoine.L.Jackson@mvn02.usace.army.mil
504.862.1797

http://www.mvn.usace.army.mil/pd/projectsList/

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